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ABSTRACT

This volume consists of updated information to be inserted into a Montana AIDS Project manual on providing services to persons with acquired immune deficiency syndrome/human immunodeficiency virus (AIDS/HIV), originally published in December 1985. The updates are mainly statistics and terminology, along with the addition of several new sections. The first section provides a definition of AIDS/HIV, its causes, symptomatic diseases, risk factors, prevention recommendations, diagnosis, and treatment. A section on personnel management deals with patient care assignments, accidental exposure to AIDS/HIV, and employees with AIDS/HIV. A section on dentists and dental care personnel advises the use of personal protection such as gloves and masks and careful sterilization and disinfection procedures. Other guidelines are given for: (1) preventing HIV and AIDS transmission during perinatal care and invasive procedures; (2) providing dialysis treatment to infected patients; (3) dealing with infected children in schools and day care centers; and (4) reporting requirements, confidentiality, and public relations. Appendices provide information from the Centers for Disease Control on the case definition of AIDS for national reporting, and prospective evaluation of exposed health-care workers. (JDD)

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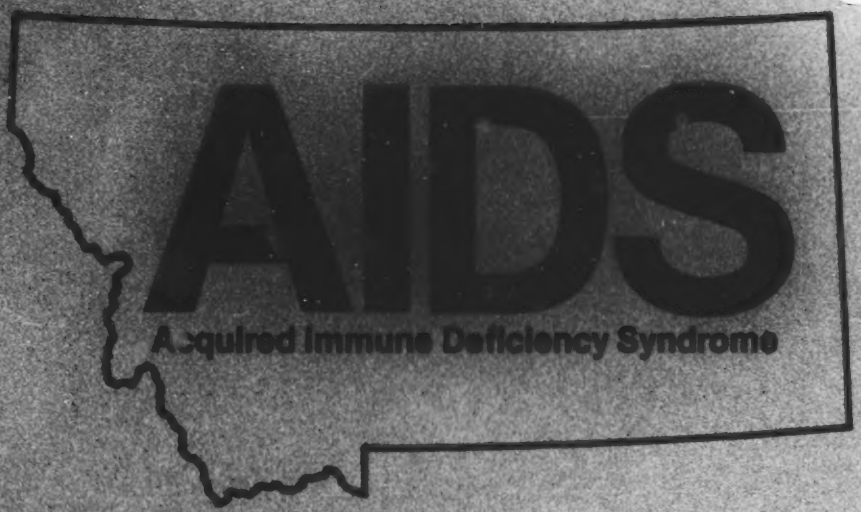

Information and Procedural Guidelines for Providing Services to Persons With AIDS/HIV

Revised February 1987

Montana AIDS Project
DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

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Instructions for update of December 1985 Information and
Procedural Guidelines for Providing Services to Persons with AIDS/HIV

The updates to this manual are mainly statistics and terminology. There have been relatively few changes in original content, however, there are several new sections added.

The one outstanding terminology change is HIV for Human Immunodeficiency Virus. References to HTLV-III/LAV should be changed to HIV.

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page i	page i
I - 2/3.	I - 2/3
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I - 8/9.	I - 8/9
I - 10/11.	I - 10/11
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VII - 2.	VII - 2
VII - 3/4.	VII - 3/4
VII - 5.	VII - 5
VII - 6/7.	VIII - 6/7
nothing.	VIII 3.1 thru 3.5
VIII 7 thru 13	VIII 7 thru 13.1
VIII 16.	VIII - 16
VIII 20 thru 22.	VIII - 20 thru 25

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CONTENTS

	Page
Acknowledgments	i
Introduction	i
SECTION I -- ACQUIRED IMMUNEODEFICIENCY SYNDROME	I-1
Questions and Answers About AIDS and HIV	I-2
What Is AIDS?	I-2
What Causes AIDS?	I-2
What Are Its Symptoms?	I-2
Who Is Being Affected?	I-3
How is AIDS Transmitted?	I-4
What Are Some of the Diseases Affecting Persons with AIDS?	I-4
What Risk Factors Have Been Identified?	I-5
Why are Homosexual Men At High Risk For AIDS?	I-5
Why Are IV Drug Users at High Risk For AIDS?	I-5
What is Recommended for Individuals at Risk, As Well As Those Who Are Seropositive (Infected with the AIDS Virus), to Prevent Further Spread of AIDS?	I-6
How Contagious is AIDS?	I-7
How Is AIDS Diagnosed?	I-8
What Laboratory Tests are Available for HIV?	I-9
What Should Be Considered Prior to Antibody Testing?	I-10
What Are Some Considerations in the Medical Evaluation of Someone With A Reactive Test?	I-10
Can AIDS Be Cured?	I-10
What Is Being Done to Halt the Spread of AIDS?	I-10

SECTION II -- GUIDELINES FOR HEALTH CARE WORKERS AND HEALTH CARE FACILITIES II-1

Personnel Management II-2

Overview II-2

Considerations in Patient Care Assignments II-2

Accidental Exposure to AIDS/HIV II-3

Employees With AIDS/HIV II-5

Other Issues in the Workplace II-6

Hospitals II-8

Out Patient Services II-12

Laboratories II-13

Long-Term Care Facilities II-15

Home Health Care II-16

Dentists and Dental Care Personnel II-17

Pre-Hospital Emergency Health Care II-21

Morticians' Services/Necropsies II-25

Optometrists/Ophthalmologists II-27

Perinatal Transmission II-29

Invasive Procedures II-31

Dialysis Treatment II-33

SECTION III -- GUIDELINES FOR PERSONAL SERVICE WORKERS AND FACILITIES/AGENCIES III-1

Personal Service Workers III-2

Overview III-2

Personnel Practices III-2

Food Service Establishments III-4

Public Accommodations III-5

Swimming Pools III-6

SECTION IV -- GUIDELINES FOR INSTITUTIONS IV-1

Custodial Institutions IV-2

Correctional Facilities IV-3

SECTION V -- GUIDELINES FOR SCHOOLS AND DAY CARE CENTERS V-1

Background V-2

School Attendance Guidelines V-2

General Precautions V-3

Personal Contact V-3

Contact With Blood or Other Body Fluids V-4

Soiled Items V-4

Employees with AIDS/HIV V-4

Other Issues in the Workplace V-5

ALTERING CHILD CARE PRACTICES WHEN A CHILD HAS AIDS/HIV V-6

SECTION VI -- REPORTING REQUIREMENTS, CONFIDENTIALITY AND PUBLIC RELATIONS VI-1

SECTION VII -- RESOURCES FOR FURTHER INFORMATION VII-1

Montana AIDS Task Force VII-2

Information Resources VII-3

HIV Antibody Test Sites VII-4

Bibliography VII-5

SECTION VIII -- APPENDICES VIII-1

A. Case Definition of AIDS for National Reporting -- United States (and revision) VIII-2
Note: CDC is in the process of updating the case definition for AIDS in both adults and children which should be available in May 1987

B. Provisional Case Definition of AIDS in Children, CDC . . . VIII-4

C. Blood/Body Fluid Precautions VIII-5

D. Parenteral Exposure to HIV in Health Care Workers -- Synopsis of Survey Project VIII-7

E. Classification System for HIV Infections VIII-11

F. Guide to Chemical Agents for Disinfection and/or Sterilization VIII-14

G. Disinfectant Characteristics of Iodophors VIII-15

H. Human Immunodeficiency Virus (HIV) Test Report VIII-16

I. MCA 50-16-301 through 314: Confidentiality of Health Care Information VIII-17

J. ARM, 16.28.201 and 16.28.202 Regarding AIDS and HIV . . . VIII-20

K. Post-Exposure Prophylaxis for Hepatitis B VIII-22

L. Immunization of Children Infected with HIV VIII-24

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INTRODUCTION

As of February 16, 1987, 30,839 persons in the United States have been diagnosed as having the disease known as Acquired Immunodeficiency Syndrome (AIDS); of these persons more than 50% have died. At this time, cases appear to be doubling every twelve to thirteen months nationally. The State of Montana confirmed its first case of AIDS in October, 1985.

At this time, AIDS has a high fatality rate. Survival time following diagnosis is dependent upon the length of time a person has had the syndrome and what specific opportunistic diseases have occurred. The fact that this disease occurs in specified high risk groups and is fatal has led to a great deal of public fear and concern about the contagiousness of this disease.

Many persons in high-risk groups develop chronic, non-specific symptoms which have been referred to as AIDS-related complex or condition (ARC). While many of the ARC patients do not go on to develop full-blown AIDS, ARC is caused by the same retrovirus that causes AIDS. Within this document, recommendations and guidelines directed at persons with AIDS also apply to those persons with ARC. Recommendations and guidelines for persons with positive antibody reactions to HIV* testing are also included.

It is the posture of the Montana Department of Health and Environmental Sciences (DHES) that the health care community, as well as the public at large, needs to be informed of the current findings about this disease. To the extent practicable, DHES recommends that persons with AIDS be treated in regular health care settings and considered for normal placement alternatives, appropriate for their overall health and social circumstances.

In this document, DHES has condensed available information on AIDS/HIV, and has established guidelines designed to improve service delivery to persons who have been diagnosed with AIDS or related disorders. At the same time, precautions to protect the care-givers are presented, as are reporting requirements relative to AIDS and HIV antibody testing. This document is also intended as an informational tool for the public.

As additional information about AIDS and its management becomes available, this document will be updated.

*Throughout this document HIV will be used (including references). The International Committee on the Taxonomy of Viruses recommends this acronym for human immunodeficiency virus. It has also been called HTLV-III, LAV and ARV.

QUESTIONS AND ANSWERS ABOUT AIDS AND HUMAN IMMUNODEFICIENCY VIRUS (HIV)*

These questions and answers present current information about the nature and extent of AIDS, testing available for antibodies to the "AIDS virus" -- HIV, the risk of contracting AIDS, the actions individuals can take to reduce spreading AIDS, and current research and related activities under way.

WHAT IS AIDS?

AIDS stands for "acquired immunodeficiency syndrome," a recently recognized condition characterized by a defect in natural immunity against disease. People who have AIDS are vulnerable to serious illnesses which would not be a threat to anyone whose immune system was functioning normally. These illnesses are referred to as "opportunistic" infections or diseases.

ACQUIRED -- means the disease is not inherited or genetic, but is one which is developed later.

IMMUNO -- refers to the body's natural system of protecting itself from disease or fighting infection.

DEFICIENCY -- means the immune system is not working and therefore not protecting the body from disease.

SYNDROME -- means a group of signs or symptoms that occur together.

WHAT CAUSES AIDS?

Medical researchers have discovered AIDS is caused by a virus known as HIV (human immunodeficiency virus); HTLV-III -- Human T-Cell Lymphadenopathy Virus Type III; lymphadenopathy associated virus (LAV); or AIDS related virus (ARV). Infection with this virus does not always lead to AIDS.

WHAT ARE ITS SYMPTOMS?

Most individuals infected with the AIDS virus have no symptoms and feel well. Some develop symptoms which are similar to many common viral illnesses, such as flu, bronchitis, and colds. HOWEVER, with AIDS the symptoms are generally unexplained, last for a longer period of time, and tend to recur.

These symptoms can occur over a period of months before a specific disease such as Kaposi's sarcoma or Pneumocystis pneumonia is diagnosed. Each of these symptoms listed below can appear in illnesses that are not associated with AIDS.

For example, everyone occasionally experiences tiredness, headaches, fevers and diarrhea.

*Throughout this document HIV will be used (including references).

Individuals at high-risk may exhibit the following symptoms:

-- Extreme tiredness, sometimes combined with headaches, dizziness or light-headedness;

-- Continued fever or night sweats;

-- Unexplained weight loss;

-- Persistent enlarged lymph nodes (swollen glands) in the neck, arm pits, groin or other sites;

-- Purple or discolored growths on the skin or on the mucous membrane (inside the mouth, anus or nasal passages);

-- Heavy, contunual dry cough that has lasted too long to be due to a cold or flu;

-- Continuing bouts of diarrhea;

-- Thrush, a thick, whitish coating on the tongue or in the throat which may be accompanied by sore throat;

-- Unexplained bleeding from any body opening or from a growth on the skin or mucous membranes.

-- Bruising which occurs more easily than usual;

-- Progressive shortness of breath.

Anyone with symptoms which continue for more than two weeks should see a doctor.

The time between infection with the HIV virus and the onset of symptoms (incubation period) seems to range from about 5 months to 5 years and possibly longer. Not everyone exposed to the virus will become infected and develop AIDS, however people who have antibodies to HIV are considered capable of transmitting the virus.

WHO IS BEING AFFECTED?

As of February 16, 1987, 30,839 people have developed AIDS in the United States. Ninety-seven percent of the AIDS cases in the U.S. have occurred in the following groups of people:

-- Sexually active homosexual and bisexual men, 73%;

-- Present or past users of intravenous drugs, 17%;

-- Persons with hemophilia or other coagulation disorders, 1%;

-- Heterosexual contacts of someone with AIDS or at risk for AIDS, 4%;

-- Persons who have had transfusions with blood or blood products, 2%.

Some 3% of cases do not fall into any of these groups, although researchers believe transmission occurred in similar ways. Infants and children who have developed AIDS may have been exposed to HIV before or during birth, or shortly thereafter, or may have a history of transfusions.

As of February 16, 1987, 444 cases of AIDS have been reported in children under 13 years of age who do not appear to have either an inherited immune deficiency or other serious underlying illness such as leukemia.

About 90% of persons with AIDS are between 20 and 49 years of age, with males accounting for 90% of all cases. All races have been affected.

HOW IS AIDS TRANSMITTED?

AIDS is spread by direct sexual contact, through the use of shared needles for injection of drugs, and less commonly from blood products. The risk of getting AIDS is increased by having multiple sexual partners, either homosexual or heterosexual. AIDS may be transmitted from an infected mother to her infant before, during or shortly after birth.

WHAT ARE SOME OF THE DISEASES AFFECTING PERSONS WITH AIDS?

Many people with AIDS have had one or both of two rare diseases: (1) Kaposi's sarcoma (KS), a type of cancer; and (2) Pneumocystis carinii pneumonia (PCP), a parasitic infection of the lungs. These and some other opportunistic infections (OOI) seen in AIDS patients are described below:

Kaposi's Sarcoma is a cancer of the tissues beneath the skin and the mucous secreting surfaces of the digestive tract, the lymph nodes and the lungs. KS lesions are often first noticed as bluish to reddish discolorations or raised, firm, purple spots on arms, legs or feet. These lesions can also appear in the mouth. The lesions neither itch nor are they painful.

Pneumocystis Carinii Pneumonia is a pneumonia caused by a protozoan (not a bacterium or a virus). It is difficult to treat and may be life threatening. Common symptoms of PCP are persistent, prolonged cough; shortness of breath; and fever.

On physical examination, common findings include rales, rhonchi (abnormal sounds in lungs); and diffuse interstitial infiltrate on chest x-ray (may be normal or only mildly abnormal).

Cryptococcosis is caused by a fungus that can infect the brain, lungs, liver, intestinal tract and skin. Severe disseminated cases are associated with AIDS.

Non-Hodgkins Lymphoma is a cancer of the lymph nodes that is now being reported at a greater than expected frequency among immunodeficient homosexual men. Primary lymphoma of the brain is one diagnosis indicative of AIDS.

Candidiasis is a yeast infection that takes advantage of the immune deficiency state and can cause overwhelming and sometimes difficult to treat infections of the digestive tract. In the AIDS patient, candidiasis often causes an inflammation of the esophagus.

Herpes Simplex is a virus that frequently causes localized and short-lived "fever blisters" or eruptions on the skin of the face, buttocks, anus or genitals. In immunodeficient individuals, herpes can produce severe and prolonged lesions that cover large areas of the body lasting more than one month.

Cytomegalovirus (CMV) is a virus that usually produces symptoms similar to infectious mononucleosis, or may produce no overt symptoms whatsoever. In the immunodeficient individual, CMV can lead to serious and debilitating infections including pneumonia.

Toxoplasmosis is a parasitic infection that rarely affects normal persons but in immunodeficient persons may become a severe disseminated disease with fever, rash, enlarged liver, spleen and lymph nodes. Headache, fever, confusion and seizures occur with central nervous system disease, often followed by death.

Cryptosporidiosis is a protozoal infection causing chronic, persistent diarrhea (longer than 1 month).

WHAT RISK FACTORS HAVE BEEN IDENTIFIED?

AIDS does not appear to be a threat to the general public. Of the groups considered "high risk," not all members are at equal risk. Studies of persons with AIDS indicate the following people are at known risk of exposure to HIV:

-- Gay and bisexual men;

-- IV drug users who share needles;

-- Recipients of certain blood products;

-- Sexual partners of someone who has AIDS or a known HIV related condition or infection, or who is in one of the above groups;

-- Infants born to mothers at risk for AIDS.

Other risk factors have not yet been identified.

WHY ARE HOMOSEXUAL MEN AT HIGH RISK FOR AIDS?

Homosexual men who have intimate sexual contact with a large number of partners increase the possibility of coming into contact with infected individuals. Homosexual acts themselves are likely to provide the route of transmission, because they may cause injury to the lining of the rectum and mouth.

WHY ARE IV DRUG USERS AT HIGH RISK FOR AIDS?

The higher risk for intravenous drug users is almost certainly due to sharing or reusing unclean needles when injecting the drugs, since blood from a person with AIDS may contain the virus and be injected into the blood stream of a healthy person.

WHAT IS RECOMMENDED FOR INDIVIDUALS AT RISK, AS WELL AS THOSE WHO ARE SEROPOSITIVE (INFECTED WITH THE AIDS VIRUS), TO PREVENT FURTHER SPREAD OF AIDS?

General recommendations for high risk individuals:

-- Eat a balanced diet, washing and cooking all foods thoroughly to avoid ingestion of potentially infectious agents. Adequate exercise and rest will help keep resistance high.

-- Do not donate blood, blood components, sperm, organs, or tissues.

-- Reduce the number of sexual partners and protect yourself and your partner from the exchange of body fluids, such as: blood, semen, urine, feces, saliva, cervical or vaginal secretions. Consistent use of condoms may reduce transmission by preventing exposure to semen and infected lymphocytes and should be promoted strongly.

-- Counseling and testing for HIV antibodies should be an on-going process, especially if still engaging in high risk behaviors, to monitor HIV antibody status.

-- Avoid recreational drug use, including alcohol, which may cause loss of inhibition and do not use inhalent nitrites (poppers) which have been linked to Kaposi's sarcoma. IV drug abusers should enroll in programs to eliminate use of IV drugs. If IV drug use continues, do not share needles or syringes.

Additional recommendations for seropositive individuals:

-- Regular medical evaluation and follow-up is advised, especially for individuals who develop signs or symptoms of AIDS.

-- Individuals should avoid any person who shows signs or symptoms of any communicable disease (including colds and influenza) and also avoid exposure to animal waste, sick animals and unimmunized newborn animals due to the possibility of infection from them or their wastes.

-- Medical/dental personnel must be advised of positive HIV antibody status, not only to take precautions against infection, but to guide proper medical treatment including:

    1) Caution in giving immunizations, since those which contain live viruses can transmit disease to the immunodeficient patient;

    2) Avoidance of casual use of antibiotics, which could lead to infection by resistant organisms;

    3) Avoidance of aspirin use if platelet count drops;

    4) Avoidance of individuals with symptoms of any communicable disease; and

    5) Counseling to postpone pregnancy until more is known about perinatal transmission of HIV.

-- Inform prospective sex partners of infection with HIV so that appropriate precautions can be taken.

-- Inform previous sex and needle-sharing partners of their potential exposure to HIV and encourage them to seek counseling/testing for HIV infection and medical evaluation.

-- Do not share toothbrushes, razors or other items (e.g., sex toys) that could become contaminated with blood, semen, urine, feces, saliva, cervical or vaginal secretions.

HOW CONTAGIOUS IS AIDS?

Healthy persons not belonging to high risk groups should not fear infection with AIDS. Casual contact with members of risk groups, persons incubating AIDS or even persons under treatment for AIDS has not been shown to cause infection. Living in the same house, riding the same public transportation, eating in the same public places, sitting on a toilet seat, working in the same office, and being around a person with AIDS are not recognized risks of infection to healthy individuals in the general population.

> ". . . For men or women in the U.S. who are straight, who don't take drugs intravenously, and who aren't hemophiliacs requiring transfusions, the chances of contracting AIDS are less than one in a million. (The chances of dying in a car accident are about one in 5,000; of being murdered, one in 10,000; and of being struck by lightning, one in 600,000.). . ."
>
> John Langone
> DISCOVER, December 1985
> Page 31

Although the AIDS virus has been found in saliva and tears, there have been no cases in which exposure to either was shown to result in transmission. Ambulance drivers, police and fire fighters who have assisted AIDS patients have not become ill.

No case of AIDS has been reported among nurses, doctors, and health care personnel as a result of caring for AIDS patients. However, several health care workers with needle stick injuries have become positive when tested for HIV antibodies. Health care and laboratory workers should follow safety procedures when handling blood and tissue samples from patients with potentially transmissible diseases, including AIDS. Extreme caution should be used when handling or disposing of hypodermic needles. In fact, AIDS patients are at much greater risk of developing infections from average, healthy persons than of transmitting infection to average, healthy persons.

HOW IS AIDS DIAGNOSED?

There are no clear-cut symptoms that indicate the loss of immunity. The diagnosis of AIDS depends on the presence of opportunistic diseases. Certain tests which demonstrate damage to various parts of the immune system and HIV antibody tests support the diagnosis.

The specific immune defect in AIDS has not been identified, but many patients show a decrease in the number of certain white blood cells called T-helper lymphocytes. Although the function of these cells can be measured, these tests are not sensitive or specific enough to be used routinely. Moreover, other illnesses can cause this test to be abnormal.

The presence of opportunistic disease plus a positive test for antibodies to HIV can make possible a clinical diagnosis of AIDS.

> The Centers for Disease Control (CDC) defines a case of AIDS as a disease, at least moderately predictive of a defect in cell-mediated immunity, occurring in a person with no known cause for diminished resistance to that disease. Such diseases include KS, PCP, and serious other opportunistic infections.[§] Diagnoses are considered to fit the case definition only if based on sufficiently reliable methods (generally histology or culture). The revision and update of this case definition appears as Appendix A.

[§]These infections include pneumonia, meningitis, or encephalitis due to one or more of the following: aspergillosis, candidiasis, cryptococcosis, cytomegalovirus, nocardiosis, strongyloidosis, toxoplasmosis, zygomycosis, or atypical mycobacteriosis (species other than tuberculosis or lepra); esophagitis due to candidiasis, cytomegalovirus, or herpes simplex virus; progressive multifocal leukoencephalopathy; chronic enterocolitis (more than 4 weeks) due to cryptosporidiosis; or unusually extensive mucocutaneous herpes simplex of more than 5 weeks duration.

WHAT LABORATORY TESTS ARE AVAILABLE FOR HIV?

Tests to detect antibodies to HIV have been licensed and are commercially available in the United States. The first licensed antibody tests are modifications of the enzyme-linked immunosorbent assay (ELISA), which uses antigens derived from whole disrupted HIV. The primary use of the antibody tests is to screen blood and plasma to eliminate from the blood supply those units which may contain this virus.

Currently available ELISA tests can be expected to identify most persons with HIV infection. The tests are NOT tests for AIDS. They only detect antibody against the HIV virus. They do not determine if the virus is still present; they do not predict if a person will become ill from the virus infection; nor do they indicate immunity.

HIV has been isolated from blood, semen, saliva and tears, and has been recovered from many individuals who have antibodies. Blood and semen have been implicated in transmission to date.

HIV has been isolated from the blood of 85 percent or more of seropositive individuals with AIDS, lymphadenopathy or other AIDS-related conditions, and from some mothers of infants with AIDS (see Section II-29). The virus also has been isolated from asymptomatic seropositive homosexual men and hemophiliacs, and has been recovered from 95 percent of seropositive, high-risk blood donors who had been implicated in the transmission of AIDS through transfusion.

WHAT SHOULD BE CONSIDERED PRIOR TO ANTIBODY TESTING?

People with HIV antibody may also be infected with the virus and may transmit it to others. Since a diagnosis of AIDS or of infection with HIV may create considerable anxiety and stress, it is important that each person understand the implications of the antibody test before being tested and be given the opportunity to decline to be tested.

Blood banks may also refer donors with reactive HIV antibody tests for post-test counseling and follow-up evaluation. Clinical laboratories may acquire the antibody test kits and need to understand the appropriate use for, and implications of, the test.

Specifically, people inquiring about antibody testing should know the following:

1. They are being tested for the antibodies to HIV virus which is the cause of AIDS.

2. The HIV antibody test is not a diagnostic test for AIDS.

3. As with any laboratory test, false positives and false negatives may occur, however, the tests have been improved and this is now extremely rare. A person can be clinically evaluated to further determine whether he/she has been infected.

4. Disclosure of test results could result in unwarranted discrimination in employment and insurance.

5. Persons need to make arrangements as to when and how they will be notified if their test is reactive.

Physicians and other health personnel must recognize the need to maintain confidentiality about reactive test results. Disclosure of this information for purposes other than medical or public health could lead to serious and unwarranted consequences for an individual with a reactive blood test. Screening procedures should be designed with safeguards to protect against unauthorized disclosures. Donors should be given a clear explanation of how information

about the results of the test will be handled. Facilities should consider developing contingency plans in the event that disclosure is sought through legal process.

WHAT ARE SOME CONSIDERATIONS IN THE MEDICAL EVALUATION OF SOMEONE WITH A REACTIVE TEST?

If a patient with a reactive ELISA test for HIV is referred to a physician, the patient should be questioned about possible exposure to the virus or possible risk factors for AIDS such as sexual orientation, history of IV drug use, hemophilia, recent history of transfusion of blood or blood products, and sexual contact with members of high-risk groups. A second ELISA test should be obtained on a follow-up serum and, if reactive, a confirmatory HIV antibody test should be performed. A person who shows serologic evidence of HIV infection should be questioned about the number and health of sexual partners, and whether he or she has had sexual contact with persons in AIDS high-risk groups.

The patient should be examined for signs of AIDS-related conditions. Testing for antibodies to HIV in the individual's sexual partners may also be useful. Physicians may be interested in Centers for Disease Control "Classification System for HIV Infections" found in Appendix E.

CAN AIDS BE CURED?

At the present time, there is no known treatment that can restore the body's immune system to normal once it has been damaged by AIDS. Treatment can be given for the various diseases and infections that attack AIDS patients. However, since the immune system remains damaged, a person with AIDS will continue to be at risk of other serious infections and cancers. The opportunistic cancers and infections may be treated individually with varying success. Many immunologic therapies are being attempted but have not been completely evaluated. There is currently no vaccine, serum, or medicine which can protect someone from developing AIDS.

Survival time following diagnosis is dependent upon the length of time the patient has had the syndrome and what specific opportunistic diseases have occurred. Thus, barring any breakthroughs in treatment, at least 50% of AIDS patients can be expected to die within 18 months of diagnosis and some 80% can be expected to die within 36 months of diagnosis, with the prognosis slightly better in those who have only Kaposi's sarcoma.

WHAT IS BEING DONE TO HALT THE SPREAD OF AIDS?

The Centers for Disease Control (CDC) formed a task force in July 1981 to investigate the problem and seek methods of prevention and control. Workers on the task force include physicians, public health advisors, epidemiologists, statisticians, laboratory scientists, and others, both at CDC headquarters in Atlanta, Georgia, and at state and local health departments across the country. Numerous medical schools and research institutes are also carrying out studies. In addition, a nationwide educational effort has been made to inform persons in high-risk groups about AIDS, with special emphasis on "safer sex" practices.

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PERSONNEL MANAGEMENT

OVERVIEW

As with any serious disease whose etiology is not completely understood, acquired immunodeficiency syndrome (AIDS) is currently causing considerable concern throughout the United States. Stories about individual cases and about research progress in unraveling the etiology and control of AIDS appear in the news media almost daily. This concern is understandable and is an increasingly important issue among health care personnel, who in the course of their duties may care for patients with AIDS.

Precautions for health professionals who work with AIDS patients are designed to minimize the risk of mucosal or parenteral exposure to potentially infective materials. Such exposure can occur during direct patient care, while working with laboratory specimens, or from inadvertent or unknowing exposure to equipment, such as needles contaminated with potentially infective materials.

In addition to being informed of these precautions, all health care workers, including students and house staff should be educated regarding the epidemiology, modes of transmission, and prevention of HIV infection.

The purpose of the following guidelines is to prevent spread of presumably transmissible agents to others and to protect patients with AIDS from the acquisition of opportunistic infections. The guidelines should be followed at any time blood or body fluids are handled to reduce the risk of infection by agents other than the HIV virus, as well. Persons may be infectious with some organisms before any symptoms appear.

Recommendations for personnel involved in invasive procedures have been developed by the Centers for Disease Control and are included in Section II-31.

CONSIDERATIONS IN PATIENT CARE ASSIGNMENTS

Some health care personnel have been reluctant to provide hands-on care to AIDS patients. However, there is no evidence that the risks in doing so are any greater than the risk associated with caring for any other sick persons. Accordingly, personnel should not be excused on their own request from delivering care to AIDS patients. There is no scientific or ethical reason to do so. If an employee having direct care responsibility refuses to perform his or her duties in relation to caring for AIDS patients, the issue becomes an administrative problem to be resolved on an individual basis. Institutions are urged to solicit the advice of their own personnel officers/managers in such situations.

Suggested steps for employees with direct patient care responsibility are:

1. Employees should be fully briefed regarding their direct care responsibilities (as outlined in their official position descriptions) prior to the arrival of patients with AIDS. Employees who voice objections should be provided individual counseling by supervisory personnel to further explain that the risk of exposure is minimal, and to outline precautions being taken. It is to be expected that certain employees may seek reassignment

to other units. On the other hand, some dedicated employees may volunteer for the assignment.

2. An employee who actually refuses to perform required work must be dealt with promptly since any delay in management taking action would possibly encourage other employees to also be insubordinate.

3. Employees who believe they are at high risk for infection because of their own immune status should be encouraged to discuss their work responsibilities with their personal physicians. If the physician determines that there are certain assignments the employee should not accept, this should be communicated in writing to the employer. Caretakers should be in good health, free of symptoms such as fever, diarrhea, etc., so they will not be a possible source of infection to the patient.

4. Personnel with certain high risk illnesses should not be assigned to work with AIDS patients who have easily transmissible opportunistic infections (e.g., CMV, varicella-zoster, etc.). The following are examples of personnel in high risk categories:

   1) Persons with AIDS or ARC;

   2) Persons with other immune deficiency diseases (e.g., Lupus Erythematosus, Agammaglobulinemia, Hodgkins Disease);

   3) Persons presently or frequently receiving large dose steroid drugs on a daily basis sufficient to depress the immune function (more than 1 mg/kg prednisone per day, e.g., some asthmatics);

   4) Persons receiving or who recently have received chemotherapy and have not achieved immune or hematologic recovery.

   5) Persons receiving any immunosuppressive medications;

   6) Pregnant women should be assessed for risk of exposure to the opportunistic infections of patients with AIDS, and need to avoid persons who are shedding CMV, especially if the shedders are being treated with high speed instrumentation that creates spatter, aerosols, or mist.

ACCIDENTAL EXPOSURE TO AIDS/HIV

Care must be taken to avoid accidental wounds from sharp instruments contaminated with potentially infective material and to avoid contact of mucous membranes and open skin lesions with materials from patients. Parenteral injections and blood drawing should be kept to a minimum and carried out by experienced personnel.

Employees who have needle-stick or other injuries associated with the care of AIDS patients should be reported to their employee health service and ongoing records should be maintained (see Appendix D).

Parenteral (e.g., needlestick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure of a health care worker to blood or other body fluids

requires the source patient be assessed clinically and epidemiologically to determine the likelihood of HIV infection. If the assessment suggests that infection may exist, the patient should be informed of the incident and requested to consent to serologic testing for evidence of HIV infection. If the source patient has AIDS or other evidence of HIV infection, declines testing, or has a positive test, the health care worker should be evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure, and if seronegative, retested after 6 weeks and on a periodic basis thereafter (e.g., 3, 6, and 12 months following exposure) to determine if transmission has occurred. During this follow-up period, especially the first 6-12 weeks, when most infected persons are expected to seroconvert, exposed health care workers should receive counseling about the risk of infection and follow recommendations for preventing transmission of AIDS. If the source patient is seronegative and has no other evidence of HIV infection, no further follow-up of concerning possible HIV infection the health care worker is necessary.

1. Accidental exposure to AIDS/HIV may occur in ways similar to accidental exposure to hepatitis B -- blood or any body secretion or excretion from an infected patient:

   a. entering the body by needle puncture wound, scalpel cut, via skin perforation; e.g., human bite.

   b. entry via contact with any mucous membrane surface such as the eye, nose or mouth.

   c. entry via an existing open cut, scratch, hangnail or other broken skin barrier (eczema).

2. Treatment of Exposure to AIDS -- IMMEDIATELY. . . follow the guidelines below.

   For wounds not requiring sutures, the following is recommended. Generally, wounds more than six hours old should not be sutured, as the risk of infection increases with time.

   a. Vigorously scrub the wound with soap and water and copiously irrigate with water.

   b. Cover the wound with a loose bandage that will keep out dirt and protect the wound from trauma.

   c. Tetanus immunization status should be determined, using the guidelines in Table 1.

Table 1
Guide to Tetanus Prophylaxis in Routine Wound Management -- United States, 1985

History of Absorbed Tetanus Toxoid (doses)	Clean, Minor Wounds		All Other Wounds[+]	
	Td[§]	TIG	Td[§]	TIG
Unknown or Three	Yes	No	Yes	Yes
Three[¶]	No**	No	No[++]	No

[+]Such as, but not limited to, wounds contaminated with dirt, feces, soil, saliva, etc; puncture wounds; avulsions; and wounds resulting from missiles, crushing, burns and frostbite.

[§]For children under 7 years old; DTP (DT, if pertussis vaccine is contraindicated) is preferred to tetanus toxoid alone. For persons 7 years old and older, Td is preferred to tetanus toxoid alone.

[¶]If only three doses of fluid toxoid have been received, a fourth dose of toxoid, preferably an absorbed toxoid should be given.

**Yes, if more than 10 years since last dose.

[++]Yes, if more than 5 years since last dose. (More frequent boosters are not needed and can accentuate side effects.)

d. Consult with employee health service, private physician, and infection control personnel as indicated or per policy of facility.

3. Follow protocol for exposure to hepatitis B (Appendix K).

4. Centers for Disease Control is conducting a voluntary prospective surveillance project to evaluate health care workers with documented parenteral exposure (needlestick, puncture wound, or cut with a sharp object) to the blood of a person with HIV infection. This study requires that an exposed health care worker have blood drawn and frozen as soon as possible after the injury occurs to ensure that a baseline specimen for HIV reactivity is preserved. Questions concerning participation or any other aspect of this surveillance project should be referred to the Hospital Infections Program (404) 329-3406. (See Appendix D for a synopsis of the project.)

EMPLOYEES WITH AIDS/HIV

Employees who have AIDS and are directly involved in patient care require special consideration. Their continued contact with patients raises concern about the potential spread of infectious diseases to them from infected patients

and vice-versa. The direct transmission of AIDS itself to patients appears to be unlikely as there is to date no evidence supporting casual contagion. Employees with AIDS may have an undiagnosed transmissible infection such as CMV or Pneumocystis and may thus represent a small but real risk to patients who might themselves be immunosuppressed. An equally important problem is the potential for transmission of unsuspected and undiagnosed infections from patients to the employee with AIDS. Employees with AIDS/HIV who carry out intimate or invasive patient care procedures may merit special concern. (See Section II-31.)

As with any employee with an active illness, when an AIDS employee is symptomatic, he should not be directly involved in patient care since illness may interfere with the employee's ability to function competently. HIV positive employees within health care facilities could be approached in two different ways:

1. A positive HIV employee could be reassigned to a non-patient care position in order to protect the employee from nosocomial pathogens and protect high-risk patients from pathogens possibly carried by the employee.

2. The employing facility should consider each reactive HIV employee on a case by case basis, through their employee health service in conjunction with recommendations from the employee's private physician, to determine that 1) the employee is free from transmissible infection, 2) the employee is not unduly susceptible to infections he might come in contact with in the line of performing his patient care duties. Patient care responsibilities could then be assigned according to an ongoing clinical evaluation of the employee's status.

3. Similar considerations apply to physicians with positive HIV. The medical staff structure must be prepared to monitor and to deal with the possibility of excluding physicians from the institution should it become apparent there may be significant risks to either the physician or to patients.

Institutions who have employees or physicians with reactive HIV tests are urged to solicit advice from their legal counsel and the State AIDS Project Coordinator, (406) 444-4740.

OTHER ISSUES IN THE WORKPLACE

The information and recommendations contained in this document do not address all the potential issues that may have to be considered when making specific employment decisions for persons with HIV infection. The diagnosis of HIV infection may evoke unwarranted fear and suspicion in some co-workers. Other issues that may be considered include the need for confidentiality, applicable federal, state, or local laws covering occupational safety and health, civil rights of employees, workers' compensation laws, provisions of collective bargaining agreements, confidentiality of medical records, informed consent, employee and patient privacy rights, and employee right-to-know statutes.

References

CDC, "Adult Immunization: Recommendations of the Immunization Practices Advisory Committee (ACIP)," 1985, p. 515.

CDC, "Guidelines for Prevention of Surgical Wound Infections, 1985," U.S. Government Printing Office.

CDC, "Recommendations for Preventing Transmission of Infection with HIV in the Workplace," MMWR, Volume 34, No. 45, November 15, 1985.

DENTISTS AND DENTAL CARE PERSONNEL

OVERVIEW

Infection control in the dental setting should be emphasized at all times, but particularly when handling tissue, instruments, and materials, including dentures, which may be contaminated with oral secretion.

PATIENT SCREENING

A patient history form should be designed and reviewed periodically with patients to alert dental personnel to potential and diagnosed AIDS/HIV or other infectious diseases.

It is recommended that known infectious patients be scheduled as the final cases of the day.

PERSONAL PROTECTION FOR STAFF AND PATIENTS

The use of physical barriers that either protect the body surfaces (such as gloves, eyeglasses, masks, rubber dams and protective clothing) or environmental surfaces (such as disposable covers for immovable dental operating apparatus), is recommended.

1. Clinic/office attire should be short-sleeved, clean and washable. Street clothes should not be worn.

2. Immunization for Hepatitis B is recommended.

If a health care worker has a parenteral (e.g., needlestick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, the source patient should be assessed clinically and epidemiologically to determine the likelihood of HIV infection. If the assessment suggests that infection may exist, the patient should be informed of the incident and requested to consent to serologic testing for evidence of HIV infection. If the source patient has AIDS/HIV or other evidence of HIV infection, declines testing, or has a positive test, the health care worker should be evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure, and, if seronegative, retested after 6 weeks and on a periodic basis thereafter (e.g., 3, 6, and 12 months following exposure) to determine if transmission has occurred. During this follow-up period, especially the first 6-12 weeks, when most infected persons are expected to seroconvert, exposed health care workers should receive counseling about the risk of infection and following recommendations for preventing transmission of AIDS/HIV. If the source patient is seronegative and has no other evidence of HIV infection, no further follow-up of the health care worker is necessary.

Centers for Disease Control is conducting a voluntary prospective surveillance project to evaluate health care workers with documented parenteral exposure (needlestick, puncture wound, or cut with a sharp object) to the blood of a person with HIV infection. This study requires that an exposed health care worker have blood drawn and frozen as soon as

possible after the injury occurs to ensure that a baseline specimen for HIV reactivity is preserved. Questions concerning particiaption or any other aspect of this surveillance project should be referred to the Hospital Infections Program (404) 329-3406. (See Appendix D for a synopsis of the project.)

ASEPSIS

Basic aseptic techniques should be established in all dental offices, denturists' facilities and dental laboratories. Written guidelines for aseptic procedures should be posted. New personnel should be thoroughly oriented and periodic checks should be made to assure asepsis is effective.

1. Hand washing technique should be posted by all sinks (e.g., iodine soaps should be used especially before lunch and going home). Hand washing between patients and following glove removal should be stressed.

2. Use of disposable equipment items is recommended (e.g., disposable novocaine, pre-packed injection units).

3. Needles and syringes should be handled as follows:

> Disposable syringes and needles, scalpel blades, razors, and other sharp items should be placed into a rigid wall, puncture resistant container located as close as practical to the area in which they are used. To prevent needlestick injuries, needles should not be recapped, purposefully bent, broken or clipped, removed from syringes or otherwise manipulated by hand.

STERILIZATION AND DISINFECTION

The distinction between sterilization and disinfection must be made. Sterilization is the destruction of all microbial forms. Disinfection properly refers only to the inhibition or the destruction of microbial pathogens. Disinfection commonly uses chemical agents and procedures which are unable to destroy microbial spores, mycobacterium tuberculosis, and hepatitis viruses.

Sterilization is the only component of control which consistently has the potential of reducing microbial count to zero. Any dental office not using heat and heat/pressure sterilization (example: autoclaves, chemical vapor, or dry heat sterilization) and thereby using disinfectants is compromising infection control.

1. Efficacy of each system and the operators should be checked by use of monitors.

2. Representative samples of each should be stored in a quality assurance file. Studies show that approximately 1/3 of sterilizers investigated did not sterilize.

3. Process indicators are less dependable than control indicators.

4. Biological monitoring is the only dependable way to prove sterilization.

5. Quality assurance records should be kept and stored for at least three years (AIDS/HIV can incubate for 1-6 years).

Since it is not possible to provide absolute asepsis for all surfaces and objects during dental procedures, strive to decontaminate those which are sources of cross-infection. Those include counter tops, light handles, switches, drawer handles, water faucets, x-ray cones, unit controls, couplings to saliva ejectors and hand pieces, and other hose endings, headrests and the arms of the dental chairs.

1. An appropriate disinfectant, such as iodophor 1:50 should be used for all impressions, dentures and other appliances.

2. Advise the dental laboratory of disinfected impressions or prosthesis and flag those that are not disinfected. Dental laboratories must be conscious of contaminated polishing equipment and materials (i.e., pumice, rag wheels).

3. Flag all materials sent to dental laboratories that come from known infected patients (see Appendix C -- Blood/Body Fluid Precautions).

The most desirable disinfectants are sporicidal, tuberculocidal, and virucidal. When positive and negative factors are taken into account, iodophors emerge as the most appropriate group for routine use in surface disinfection.

Instruments or other nondisposable items that enter normally sterile tissue or the vascular system or through which blood flows should be sterilized before reuse.

Surgical instruments used on all patients should be decontaminated after use rather than just rinsed with water. Decontamination can be accomplished by machine or by hand cleaning by trained personnel wearing appropriate protective attire (including gloves) and using appropriate chemical germicides. Instruments or other nondisposable items that touch intact mucous membranes should receive high-level disinfection.

Chemical germicides registered with and approved by the U.S. Environmental Protection Agency (EPA) should be used. Information on specific label claims of commercial germicides can be obtained by writing: Disinfectants Branch, Office of Pesticides, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The manufacturer's instructions should be followed, and the instrument or device to be sterilized or disinfected should be cleaned thoroughly before exposure to the germicide.

Appendices F and G provide guides to chemical agents for disinfection/ sterilization, and describe the disinfectant characteristics of iodophors.

References

CDC, "Acquired Immune Deficiency Syndrome (AIDS): Precautions for Health Care Workers and Allied Professionals," MMWR, Volume 32, No. 34, September 2, 1983, Vol. 32, No. 34.

CDC, "Recommendations for Preventing Transmission of Infection with HIV in the Workplace," MMWR, Vol. 34, No. 45, November 15, 1985

RECOMMENDATIONS FOR ASSISTING IN THE PREVENTION OF PERINATAL TRANSMISSION OF HIV AND AIDS

This information is intended to assist in developing procedures to prevent perinatal transmission of HIV, the virus that causes acquired immunodeficiency syndrome (AIDS).

This document contains recommendations for providing counseling and, when indicated, testing for antibody to HIV for women who are at increased risk of acquiring the virus and who are either pregnant or may become pregnant. It is important that these women know they are at risk, as well as know and understand their HIV-antibody status, so they can make informed decisions to help prevent perinatally acquired HIV.

Through counseling, uninfected women can learn how to avoid becoming infected, and infected women can choose to delay pregnancy until more is known about perinatal transmission of the virus. If already pregnant, infected women can be provided information for managing the pregnancy and caring for the child.

Currently available data indicate that most pediatric HIV infections and AIDS are acquired perinatally from infected women, but additional studies are needed to better quantify the risk of transmission from an infected pregnant women to the fetus or newborn.

The information below pertains to women. However, men who are HIV antibody positive should also be counselled regarding the risks of sexual and perinatal transmission, so they can refer for counselling and testing their sex partners who may be pregnant or considering pregnancy.

Mechanisms of Perinatal Transmission

It is believed that HIV is transmitted from infected women to their fetuses or offspring during pregnancy, during labor and delivery, or perhaps shortly after birth. Transmission of the virus during pregnancy or labor and delivery is demonstrated by two reported AIDS cases occurring in children who had no contact with their infected mothers after birth.

Transmission of the virus after birth has been implicated in one case of HIV infection in a child born to a mother reported to have acquired the infection from a postpartum blood transfusion. Since she breastfed the child for 6 weeks, breastfeeding is suggested as the possible mode of transmission. Recently, HIV has been isolated from the breast milk of infected women.

Risk of Perinatal Transmission from Infected Mothers

The rate of perinatal transmission of HIV from infected pregnant women is unknown, however, available data suggest a high rate. Additional studies are needed to better define the rate of transmission and variables associated with it.

Risk of Illness Among Infected Pregnant Women

Pregnancy is associated with suppression of cell-mediated immunity and increases susceptibility to some infections. It is not known whether pregnancy increases

an infected woman's risk of developing AIDS or ARC, but there may be an increased likelihood of developing disease when an HIV infection occurs in association with pregnancy.

Prevalence of HIV Infection

Counseling and testing for antibody to HIV, when indicated, to reduce perinatal transmission of AIDS will be most beneficial in populations of women with increased prevalence of the virus. These include: women who have used drugs intravenously for non-medical purposes; women who were born in countries where heterosexual transmission is thought to play a major role; women who have been engaged in prostitution; and women who are or have been sex partners of men who abuse IV drugs, are bisexual, have hemophilia, were born in countries where heterosexual transmission is thought to play a major role, or have evidence of HIV infection.

Reference

CDC, "Recommendations for assisting in the prevention of perinatal transmission of HIV and AIDS," MMWR, 34:721-26, 721-32, Dec. 6, 1985.

RECOMMENDATIONS FOR PREVENTING TRANSMISSION OF INFECTION WITH HIV DURING INVASIVE PROCEDURES

In this document, an operative procedure is defined as surgical entry into tissues, cavities, or organs or repair of major traumatic injuries in an operating or delivery room, emergency department, or outpatient setting, including both physicians' and dentists' offices. An obstetric procedure is defined as a vaginal or cesarean delivery or other invasive obstetric procedure where bleeding may occur. A dental procedure is defined as the manipulation, cutting, or removal of any oral or perioral tissues, including tooth structure, where bleeding occurs or the potential for bleeding exists.

There have been no reports of HIV transmission from an HCW to a patient or from a patient to an HCW during operative, obstetric, or dental invasive procedures. Nevertheless, special emphasis should be placed on the following precautions to prevent transmission of bloodborne agents between all patients and all HCW's who perform or assist in invasive procedures.

1. All HCW's who perform or assist in operative, obstetric, or dental invasive procedures must be educated regarding the epidemiology, modes of transmission, and prevention of HIV infection and the need for routine use of appropriate barrier precautions during procedures.

2. All HCW's who perform or assist in invasive procedures must wear gloves when touching mucous membranes or nonintact skin of all patients and use other appropriate barrier precautions when indicated (e.g., masks, eye coverings, and gowns, if aerosolization or splashes are likely to occur). In the dental setting, as in the operative and obstetric setting, gloves must be worn for touching all mucous membranes and changed between all patient contacts. If a glove is torn or a needlestick or other injury occurs, the glove must be changed as promptly as safety permits and the needle or instrument removed from the sterile field.

3. All HCW's who perform or assist in vaginal or cesarean deliveries must use appropriate barrier precautions (e.g, gloves and gowns) when handling the placenta or the infant until blood and amniotic fluid have been removed from the infant's skin. Recommendations for assisting in the prevention of perinatal transmission of HIV have been published.

4. All HCW's who perform or assist in invasive procedures must use extraordinary care to prevent injuries to hands caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments following procedures. After use, disposable syringes and needles, scalpel blades, and other sharp items must be placed in puncture-resistant containers for disposal. To prevent needlestick injuries, needles should not be recapped; purposefully bent or broken; removed from disposable syringes; or otherwise manipulated by hand. No data are currently available from controlled studies examining the effect, if any, of the needle-cutting devices on the incidence of needlestick injuries.

5. If an incident occurs during an invasive procedure that results in exposure of a patient to the blood of an HCW, the patient should be informed of the

incident, and previous recommendations for management of such exposures should be followed.

6. No HCW who has exudative lesions or weeping dermatitis should perform or assist in invasive procedures or other direct patient-care activities or handle equipment used for patient care.

7. All HCW's with evidence of any illness that may compromise their ability to adequately and safely perform invasive procedures should be evaluated medically to determine whether they are physically and mentally competent to perform invasive procedures.

8. Routine serologic testing for evidence of HIV infection is not necessary for HCW's who perform or assist in invasive procedures or for patients undergoing invasive procedures, since the risk of transmission in this setting is so low. Results of such routine testing would not particularly supplement the precautions recommended above in further reducing the negligible risk of transmission during operative, obstetric, or dental invasive procedures.

Previous recommendations should be consulted for: (1) preventing transmission of HIV infection from HCW's to patients and patients to HCW's in health-care settings; (2) preventing transmission from patient to patient; (3) sterilizing, disinfecting, housekeeping, and disposing of waste; and (4) managing parenteral and mucous-membrane exposures of HCW's and patients. Previously recommended precautions are also applicable to HCW's performing or assisting in invasive procedures.

References

1. CDC, "Recommendations for preventing transmission of infection with HIV in the workplace." MMWR 1985; 34:682-6, 691-5.

2. CDC, "Recommendations for assisting in the prevention of perinatal transmission of IHV and acquired immunodeficiency syndrome." MMWR 1985; 34:721-6, 731-2.

3. CDC, "Acquired immune deficiency syndrome (AIDS): precautions for clinical and laboratory staffs." MMWR 1982; 31:577-80.

4. CDC, "Acquired immune deficiency syndrome (AIDS): precautions for health-care workers and allied professionals." MMWR 1983; 32:450-1.

5. CDC, "Recommendations for preventing transmission of infection with HIV during invasive procedures." 35:221-23, April 1, 1986.

RECOMMENDATIONS FOR PROVIDING DIALYSIS TREATMENT TO PATIENTS INFECTED WITH HIV

Patients with end-stage renal disease who are undergoing maintenance dialysis and who have manifestations of HIV infection, including acquired immunodeficiency syndrome (AIDS), or who are positive for antibody to HIV can be dialyzed in hospital-based or free-standing dialysis units using conventional infection-control precautions. Standard blood and body fluid precautions and disinfection and sterilization strategies routinely practiced in dialysis centers are adequate to prevent transmission of HIV.

No transmission of HIV infection in the dialysis-center environment has been reported, and the possibility of such transmission appears extremely unlikely when routine infection-control precautions are followed. The routine infection-control precautions used in all dialysis centers when dialyzing all patients are considered adequate to prevent HIV transmission. These would include: blood precautions; routine cleaning and disinfection of dialysis equipment and surfaces that are frequently touched; and restriction of nondisposable supplies to individual patients unless such supplies are sterilized between uses.

The following recommendations take into consideration recent knowledge about HIV and update infection-control strategies for dialyzing patients infected with HIV:

1. Procedures for environmental control and for disinfection and sterilization of hemodialysis machines include chemical germicides used for disinfection and sterilization of devices in the dialysis center. These products are also effective against HIV. Strategies for disinfecting the dialysis fluid pathways of the hemodialysis machine are targeted to control bacterial contamination and generally consist of using about 500-750 ppm of sodium hypochlorite for 30-40 minutes or 1.5%-2.0% formaldehyde overnight. In addition, several chemical germicides formulated to disinfect dialysis machines are commercially available. None of these products or procedures need to be altered after dialyzing patients infected with HIV.

2. Patients infected with HIV can be dialyzed by either hemodialysis or peritoneal dialysis and do not need to be isolated from other patients.

3. Standard infection-control strategies that are used routinely in dialysis units for all dialysis patients and personnel should be used to prevent HIV transmission. Specifically, these strategies include blood precautions and barrier techniques, such as the use of gloves, gowns and handwashing techniques.

4. Precautions against needlestick injuries, as well as the appropriate use of barrier precautions, such as wearing gloves when handling items contaminated with blood or serum, should be practiced by all personnel caring for all dialysis patients. Extraordinary care should be taken to prevent injuries to hands caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments following procedures. After use, disposable syringes and needles, scalpel blades, and other sharp items must be placed in puncture-resistant containers for disposal. To prevent needlestick injuries, needles should not be recapped; purposefully

bent or broken; removed from disposable syringes; or otherwise manipulated by hand.

References

1. CDC, "Recommendations for providing dialysis treatment to patients infected with HIV," MMWR, Vol. 35, No. 23, June 13, 1986.

ACQUIRED IMMUNODEFICIENCY SYNDROME IN CORRECTIONAL FACILITIES

The apparent lack of reported AIDS cases among correctional staff as a result of contact with inmates is consistent with previous findings that the risk of HIV transmission in occupational settings is extremely low and does not appear to result from casual contact. Correctional staff should follow published guidelines for preventing transmission of HIV infection in the workplace. (See Section II and IV-2.)

Reference

1. CDC, "AIDS in correctional facilities: A report of the National Institute of Justice and the American Correctional Association," MMWR, Vol. 35, No. 12, March 28, 1986.

SCHOOLS AND DAY CARE CENTERS

BACKGROUND

As of February 16, 1987, 444 children in the U.S. under the age of 13 have been diagnosed with AIDS/HIV. Most of these children became ill very early in life (at less than one year of age), having contracted the infection either congenitally or from blood transfusions. No family members of these children have become ill from contact with the children. However, until we know more about AIDS/HIV, day care workers, school teachers, and others should exercise the same precautions they would take with an adult with AIDS/HIV.

The recommendations which follow apply to all children known to be infected with human immunodeficiency virus (HIV). This includes children with AIDS/HIV; children who are diagnosed by their physicians as having an illness due to infection with HIV but who do not meet the case definition; and children who are asymptomatic but have virologic or serologic evidence of infection with HIV.

The CDC case definition of AIDS/HIV in children is reproduced in Appendix B.

SCHOOL ATTENDANCE GUIDELINES

The question of children with AIDS/HIV attending day care or school is not strictly a medical matter. The following recommendations and infection control procedures are intended to provide the initial framework for development of subsequent guidelines by all parties concerned. Each child infected with HIV should be considered individually.

1. A child with AIDS/HIV should be allowed to attend day care and school in a regular classroom setting with the approval of the student's physician.

2. Day care centers and schools should attempt to use the least restrictive means to accommodate the child's needs and the infection control recommendations.

3. Infected children should be allowed to attend day care or school as long as they are toilet trained, have no uncoverable open sores or skin eruptions, and do not bite. Students (K-12) who are excluded for these reasons should receive adequate alternative education through homebound or other programs.

4. Children with AIDS/HIV should be temporarily removed from day care or school if measles or chickenpox is occurring in the school population (e.g., cases occurring in classroom or close non-classroom contacts). This also applies to other children with immune system abnormalities.

5. Children with AIDS/HIV should be temporarily removed from day care or school when they are acutely ill, as should any child.

6. The day care center or school should respect the right to privacy of the individual; therefore, knowledge that a child has AIDS/HIV should be confined to those selected persons with a direct need to know (e.g., principal, school nurse, child's teacher or day care director). Those persons should be provided with appropriate information concerning such

precautions as may be necessary and should be aware of confidentiality requirements.

7. The school nurse or other knowledgeable person should be appointed as the child's advocate to assist in problems that arise, provide educational materials answer questions and act as liaison with the child's physician.

GENERAL PRECAUTIONS

1. Good personal hygiene is probably the best protection against infection with HIV virus, with careful handwashing being the single most important personal hygiene practice. Handwashing, combined with a common-sense avoidance, removal or reduction of possible sources of infection is important in all communicable disease control, including HIV/AIDS. Handwashing applies even if gloves are worn.

2. Disposable gloves should be used any time there will be contact with blood, urine, feces, semen or saliva. Hands should be thoroughly washed after gloves are discarded.

3. Thorough cleaning of surfaces contaminated with blood and other body fluids followed by use of disinfectants, must be maintained.

   Environmental surfaces are generally adequately cleaned by housekeeping procedures commonly used. Surfaces exposed to blood and body fluids should be cleaned with a detergent followed by decontamination using an EPA-approved hospital disinfectant that is mycobactericidal. Individuals cleaning up such spills should wear disposable gloves.

   Laundry and dishwashing cycles commonly used in public facilities are adequate to decontaminate linens, dishes, glassware and utensils.

   Leak-proof bags should be used for disposal of cleaning materials.

   Chemical germicides registered with and approved by the U.S. Environmental Protection Agency (EPA) should be used. Information on specific label claims of commercial germicides can be obtained by writing: Disinfectants Branch, Office of Pesticides, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The manufacturer's instructions should be followed, and the instrument or device to be sterilized or disinfected should be cleaned thoroughly before exposure to the germicide.

PERSONAL CONTACT

1. Direct mouth-to-mouth or genital contact should be avoided with persons with AIDS/HIV. Activities such as mouth-to-mouth kissing should be discouraged.

2. Mouth-to-mouth sharing of food and other objects (e.g., pencils, gum, toys) between children should be discouraged.

3. Personal toiletry items (e.g., towels, toothbrushes, razors) and tools (e.g., scissors, nail files, woodworking tools) which may potentially cause

cutting injuries should not be shared by persons with AIDS/HIV and others. Toothbrushes should not be available in day care or pre-school situations.

CONTACT WITH BLOOD OR OTHER BODY FLUIDS

1. Care should be taken to minimize breaks in the skin (for example, hand lotion can be used to minimize chapping). If the person with AIDS/HIV has breaks in the skin, the care provider should use gloves when touching those areas.

2. Bleeding or oozing cuts or abrasions (in either the care giver or a person with AIDS/HIV) should be covered (gauze, bandaids, etc.) whenever possible. The care provider's fingernails should be kept trimmed and clean.

3. Care providers should avoid direct skin contact with blood while caring for nose bleeds, bleeding or oozing wounds, or menstrual accidents in a person with AIDS/HIV. Disposable gloves should be used in these situations.

4. Gloves, sanitary napkins, gauze pads or any other materials which are soiled should be carefully and promptly discarded in leakproof, sealed plastic bags or containers. Ultimate disposal is by incineration or placement in a properly supervised and maintained sanitary landfill.

5. Environmental surfaces soiled with blood should be thoroughly cleaned as recommended previously.

SOILED ITEMS

1. Items soiled by blood, saliva or other body fluids from a person with AIDS/HIV should not be used by others; these items should be discarded or thoroughly cleaned with soap and water and disinfected with an appropriate disinfectant before reuse.

2. Dishes -- Washing of dishes with plenty of hot, soapy water, followed by thorough rinsing, is recommended. An electric dishwasher can also be utilized for dishwashing. Separate dishwashing is not needed for dishes or utensils used by someone with AIDS/HIV.

3. Laundry -- Blood-contaminated items should be handled with appropriate precautions (gloves, apron and any other cover-up needed to prevent direct exposure to blood). Washing with soap, hot water and bleach, followed by thorough rinsing is suggested. A washing machine and dryer can be utilized. Separate laundering is not necessary for items used by a child with AIDS/HIV. It is of importance to thoroughly scrape and clean adherent materials from objects and surfaces before laundering.

EMPLOYEES WITH AIDS/HIV

The determination of whether an infected school employee should be permitted to remain employed in a capacity that involves contact with students or other school employees should be made on a case-by-case basis. In making this determination, consideration should be given to: (1) the physical condition of the school employee; (2) the expected type of interaction with others in the school

setting; and (3) the impact on both the infected school employee and others in that setting.

The sexual orientation of a school employee is not cause to believe that he or she is an infected individual. No school employee or potential school employee should be required to provide information as to his/her sexual orientation.

School districts who have employees with reactive HIV tests are urged to solicit advice from their legal counsel and the State AIDS Project Coordinator (444-4740).

OTHER ISSUES IN THE WORKPLACE

The information and recommendations contained in this document do not address all the potential issues that may have to be considered when making specific employment decisions for persons with HIV infection. The diagnosis of HIV infection may evoke unwarranted fear and suspicion in some co-workers. Other issues that may be considered include the need for confidentiality, applicable federal, state, or local laws governing occupational safety and health, civil rights of employees, workers' compensation laws, provisions of collective bargaining agreements, confidentiality of medical records, informed consent, employee and patient privacy rights, and employee right-to-know statutes.

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ALTERING CHILD CARE PRACTICES WHEN A CHILD HAS AIDS/HIV

Some child care practices need to be altered when the child has AIDS/HIV. The following recommendations, as well as the General Precautions on the previous pages provide guidance for parents and foster parents.

Bottle Feeding: Sterilization of bottles is recommended for the immunosuppressed infant. Soak bottles in water after use to prevent milk from hardening and being difficult to remove. Gloves should be worn when feeding the child if the caregiver has a cut or dermatitis. Hold the baby during feedings.

Oral Hygiene: Oral hygiene in infancy is a good practice, although children's mouths are not usually attended until they have teeth.

Feeding Utensils: Do not feed the child with your fingers or hands; use utensils. Wash all utensils with hot sudsy water followed by a thorough rinsing, or wash in a dishwasher.

Diaper Care: Use gloves when changing diapers. Hands should be washed before and after. To avoid any skin breakdown, wash child carefully, dry and powder. Usual ointments are fine. Do not share the ointments with other children. Disposable diapers should be placed in plastic bags and tied securely prior to disposing.

Hugging and Holding: Do not avoid comforting the child. Hugging and kissing on the cheek do not spread the virus.

Prevention of Rashes: As the immune suppressed child's body provides little skin defense against common germs, caution must be exercised to maintain the child's skin, to keep it clean and intact. Regular baths, proper drying, use of lotions to prevent dryness or irritations are all required. Keep tubs free of detergents which might cause dermatitis or irritations. Protect children from both sun and wind burns. Use vaseline on skin in cold weather and shield the child from the sun. If the child has a cold, wash face and hands more frequently.

Care of Nails and Feet: Cut nails straight across and keep short to avoid infection or ingrowing and to minimize scratching. Dry feet after bath to prevent fungal infections which like to grow in dampness. Observe feet for irritations from shoes and possible skin allergies to shoes.

Pacifiers: Sterilize at least once a day by boiling in water for at least five minutes.

Drooling: Use a disposable cloth to wipe off drools. Keep skin clean from saliva. Wash hands with soap and water after handling any oral secretions.

Laundry: It is not necessary to keep the child's clothing separate from other household members' clothing. Use as many disposable items as practical. Diapers used to burp and sheets which may be soiled (though not visibly) by saliva or excreta should be washed in hot water using mild detergents and bleach and rinsed thoroughly to avoid any bleach burns.

Toys: Do not allow the child's toys to be shared or borrowed. TOYS SHOULD BE WASHED DAILY.

Fresh Air: As child's contact with other children may be limited, outdoor play will prove an opportunity to compensate for isolation and will provide opportunities to stimulate the child, i.e., walks, window shopping, visits to museums, etc.

Using Park: Children can go on swings and play in parks but should not be taken outdoors if they are sick.

COMMON ILLNESSES AND CHILDREN WITH AIDS/HIV

Though parents are generally encouraged to handle minor illnesses at home, for foster care children it is recommended that the foster care staff be contacted at the very beginning of even minor problems. Since the AIDS/HIV child does not handle infections as well as the healthy child does, it is important for you to recognize the signs and symptoms of common illnesses. These include: red watery eyes, sticky eyelids, red scaly skin, running nose, fever, sore throat, cough, increased tiredness, muscle aches, crankiness, change in appetite, vomiting, diarrhea, rashes, sores around the mouth. As the child with AIDS/HIV may have already had bacterial, viral or fungal infections, any recurrence of these illnesses must immediately be reported.

TREATING COMMON ACCIDENTS AND ILLNESSES

To help monitor the child's health, a rectal thermometer is necessary. It should be stored in a glass container with a disinfectant (such as 0.2% iodine in 70-80% alcohol) which is changed every three days. Do not use this thermometer for anyone else. If the child becomes ill with diarrhea or vomiting, mask and gloves should be used by the caregiver at the time of washing and diaper changes if sprays are expected to be produced. Be certain toys or equipment soiled with feces or vomitus are thoroughly cleaned.

Any trauma to the skin should be considered of greater importance than in a healthy child.

Gloves should be worn for treating any cuts, bites, nosebleeds, bee stings or burns. Any dressings or bandages used to clean and protect the child should be discarded in a sealed plastic bag. The sealed bag should be incinerated or sent to a properly supervised and maintained sanitary landfill in accordance with local solid waste regulations.

PREVENTION OF DISEASE

The usual immunization schedule for children will be altered. (See Appendix L -- ACIP Recommendations.) Immunizations containing live viruses (such as oral polio and measles) should not be given; substitutions will be required. Some additional vaccinations against flu or pneumonia may be advised. Medical examinations and check-ups may be scheduled far more frequently than usual. The physical growth of the child may need to be monitored more closely than usual.

REPORTING REQUIREMENTS, CONFIDENTIALITY, AND PUBLIC RELATIONS

REPORTING REQUIREMENTS

HIV testing must be reported to DHES by the laboratories or physicians who do it. If the results of a test are positive, a report must be submitted to DHES by 5 p.m. Friday of the week in which the test is performed and a specimen must be submitted to DHES' microbiology laboratory for confirmation of the results.

A form for reporting the number of such tests with negative results which are done each month is available from DHES and must be submitted to DHES by the 15th day of the month following the one in which the tests are performed (a sample form is in Appendix H).

Cases of AIDS must be reported to both DHES and the local health officer of the county from which the report emanates by 5 p.m. Friday of the week in which the diagnosis is made; such case reports must contain the information required by DHES' confidential case card, available from DHES.

A copy of the current rules specifying reporting requirements is in Appendix J.

CONFIDENTIALITY

Disclosure of any case reports and related patient information is prohibited, except under the circumstances allowed by Title 50, Chapter 16, Montana Code Annotated (see Appendix I). DHES' rules also prohibit release of the names of those who report AIDS cases or HIV test results.

As for minors who want to have themselves tested for the AIDS virus antibody or to see a doctor because they suspect they might have AIDS, Montana law allows them to receive such services from a hospital, public clinic, or physician without the consent of parent, custodial, guardian, or spouse because a communicable disease is involved. However, the law does give the health professional the choice, though not the obligation, to inform the parent, guardian, custodian, or spouse if, in the professional's judgement, severe complications are likely; major surgery or prolonged hospitalization is needed; the health and safety of the minor, the minor's younger siblings, or the public would be otherwise jeopardized; the minor's physical and mental health and family harmony would benefit; or, in the case of a hospital, the hospital wants a third party to be committed to pay for the services. (See Sections 41-1-402 and 4-1-403, MCA.)

Health care facilities and institutions should be careful to balance the need to ensure appropriate precautions to prevent spread of disease with the need to ensure appropriate confidentiality of their patients. Patients with AIDS, like other patients with diseases spread by blood, will need to have laboratory tests performed, and they may need other specialized procedures such as surgery or other invasive procedures. In addition, they may need to be transported to other hospital departments or clinics for proper management. The facility should develop a transfer procedure that ensures that staff who care for these patients in other departments/clinics know what precautions need to be taken.

Because of the publicity that AIDS has received, however, special care needs to be taken to preserve the dignity and confidentiality of persons with AIDS. Unless such procedures are outlined, there are dangers 1) that patients will not be appropriately identified, 2) that proper precautions will not be taken, or alternatively, 3) that confidentiality will not be preserved. The general designation "Blood/Body Fluid Precautions" should be sufficient, if utilized uniformly. The precautions, but not the diagnosis, should be clearly identified.

PUBLIC RELATIONS

Public relations issues present both problems and opportunities. Some health care facilities and institutions have found that the treatment of patients with AIDS has had adverse public relations consequences. Occasionally, members of the press will place disruptive and time-consuming demands upon staff. On the other hand, patients or members of the staff may make inappropriate requests, such as asking that AIDS patients not be treated in the facility or institution. The institution must not allow these disruptions to interfere with patient care. Education will often allay inappropriate concerns and in many communities, contact with news media will present unique opportunities for public education about AIDS.

In dealing with the press, careful and honest sharing of information is recommended to diminish adverse publicity and promote public education. The facility should establish several principles for dealing with the press: first, patient confidentiality and dignity must be preserved; second, a knowledgeable and authoritative person should be the designated representative to the press, with other staff members coordinating all press communications through that representative.

MONTANA AIDS TASK FORCE

Montana DHES organized a Task Force for considering issues relating to AIDS/HIV and making recommendations. The Task Force had five subcommittees; 1) Education, 2) Funding, 3) Policies, 4) Medical Advisory and 5) Prevention. With the development of this procedural guideline document, the initial responsibility of the Task Force was met. The Task Force was disbanded in January 1987. However, its members remain available to present educational and informational forums concerning AIDS. Persons or groups desiring such presentations should contact the Preventive Health Services Bureau at (406) 444-4740.

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John C. Wilson, Chief, Records and Statistics Bureau

Persons also available to present forums include Bruce Desonia, Stephen Linder and Albert Niccolucci.

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James Silva, D.D.S., Butte
Barbara A. Meek, Senior PHA, CDC

INFORMATION RESOURCES

Montana State Department of Health
and Environmental Sciences
(406) 444-4740
Montana AIDS Project
Cogswell Building
Helena, MT 59620

Maintains the most current information available about the disease and its control. Educational offerings are available. Will assist local providers upon request.

NGTF AIDS Hotline
1-800-221-7044

Toll-free national hot line run by the National Gay Task Force to provide information and referrals.

United Blood Service
(406) 248-9168
3000 7th Avenue North
Billings, MT 59101

Provides information on donor eligibility and safety of the blood supply.

American Red Cross
Blood Services -- Montana Region
(406) 727-2212
1300 28th Street South
Great Falls, MT 59401

Provides information on donor eligibility and safety of the blood supply.

AIDS Information
U.S. Public Health Service
(202) 245-6867
Room 721-H, HHH Building
200 Independent Avenue, S.W.
Washington, D.C. 20201

Provides AIDS information materials and periodic updates on AIDS for lay and professional public.

National AIDS Hotline
1-800-342-AIDS

AZT Information Hotline
1-800-843-9388

CDC Printed Materials
(404) 329-3534

National Gay and Lesbian Task Force
1-800-221-7044 (3-9 p.m.)

Gay Men's Health Crisis
(212) 807-6655

Out In Montana
(A Gay and Lesbian Support Group)
P. O. Box 8896
Missoula, MT 59807

Billings AIDS Support Network
P. O. Box 1748
Billings, MT 59103
Hotline: (406) 252-1212 (not toll-free)

H I V A N T I B O D Y T E S T S I T E S

		Phone
BILLINGS	Deering Community Health Center	(406) 256-6821
BOZEMAN	Family Planning of South Central Montana	(406) 587-0681
BUTTE	Butte Silver Bow City-County Health Department	(406) 723-3271
GREAT FALLS	Cascade City-County Health Department	(406) 761-1190
HAVRE	Hill County Health Department	(406) 265-5481, Ext. 66
HELENA	Tri-County Family Planning	(406) 442-3830
KALISPELL	Flathead City-County Health Department	(406) 752-5300, Ext. 343
MISSOULA	Missoula City-County Health Department	(406) 721-5700, Ext. 398

Provides counseling, and education to persons requesting blood testing; provides information and education to health professionals and public.

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Table of Contents

Page

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Update: acquired immunodeficiency syndrome (AIDS) among patients with hemophilia—United States MMWR 1983 Dec 2,32 613-15 ... 47

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Update: acquired immunodeficiency syndrome (AIDS) in persons with hemophilia MMWR 1984 Oct 26,33 589-92 ... 66

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August 1, 1985

The Case Definition of AIDS Used by CDC for National Reporting (CDC-reportable AIDS)

For the limited purposes of national reporting of some of the severe late manifestations of infection with human T-lymphotropic virus, type-III/ lymphadenopathy-associated virus (HTLV-III/LAV) in the United States, CDC defines a case of "acquired immunodeficiency syndrome" (AIDS) as an illness characterized by:

I. one or more of the opportunistic diseases listed below (diagnosed by methods considered reliable) that are at least moderately indicative of underlying cellular immunodeficiency, and

II. absence of all known underlying causes of cellular immunodeficiency (other than HTLV-III/LAV infection) and absence of all other causes of reduced resistance reported to be associated with at least one of those opportunistic diseases.

Despite having the above, patients are excluded as AIDS cases if they have negative result(s) on testing for serum antibody to HTLV-III/LAV*, do not have a positive culture for HTLV-III/LAV, and have both a normal or high number of T-helper (OKT4 or LEU3) lymphocytes and a normal or high ratio of T-helper to T-suppressor (OKT8 or LEU2) lymphocytes. In the absence of test results, patients satifying all other criteria in this definition are included as cases.

This general case definition may be made more explicit by specifying:

I. the particular diseases considered at least moderately indicative of cellular immunodeficiency, which are used as indicators of AIDS, and

II. the known causes of cellular immunodeficiency, or other causes of reduced resistance reported to be associated with particular diseases, which would disqualify a patient as an AIDS case.

This specification is as follows:

I. <u>Diseases at least moderately indicative of underlying cellular immunodeficiency:</u>

In the following list of diseases, the required diagnostic methods with positive results are shown in parentheses. "Microscopy" may include cytology.

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* A single negative test for HTLV-III/LAV may be applied here if it is an antibody test by ELISA, immunofluorescent, or Western Blot methods, because such tests are very sensitive. Viral cultures are less sensitive but more specific, and so may be relied on if positive but not if negative. If multiple antibody tests have inconsistent results, the result applied to the case definition should be that of the majority. A positive culture, however, would over-rule negative antibody tests.

<u>NOTE</u>: CDC is in the process of updating the case definitions to be completed in May 1987.

A. Protozoal and Helminthic Infections:

1. Cryptosporidiosis, intestinal, causing diarrhea for over 1 month, (on histology or stool microscopy)

2. Pneumocystis carinii pneumonia, (on histology, or microscopy of a "touch" preparation, bronchial washings, or sputum)

3. Strongyloidosis, causing pneumonia, central nervous system infection, or infection disseminated beyond the gastrointestinal tract, (on histology)

4 Toxoplasmosis, causing infection in internal organs other than liver, spleen, or lymph nodes (on histology or microscopy of a "touch" preparation)

B. Fungal Infections:

1. Candidiasis, causing esophagitis (on histology, or microscopy of a "wet" preparation from the esophagus, or endoscopic or autopsy findings of white plaques on an erythematous mucosal base, but not by culture alone)

2. Cryptococcosis, causing central nervous system or other infection disseminated beyond lungs and lymph nodes (on culture, antigen detection, histology, or India ink preparation of CSF)

C. Bacterial Infections:

1. Mycobacterium avium or intracellulare (Mycobacterium avium complex), or Mycobacterium kansasii, causing infection disseminated beyond lungs and lymph nodes (on culture)

D. Viral Infections:

1. Cytomegalovirus, causing infection in internal organs other than liver, spleen, or lymph nodes (on histology or cytology, but not by culture or serum antibody titer)

2. Herpes simplex virus, causing chronic mucocutaneous infection with ulcers persisting more than 1 month, or pulmonary, gastrointestinal tract (beyond mouth, throat, or rectum), or disseminated infection (but not encephalitis alone)(on culture, histology, or cytology)

3. Progressive multifocal leukoencephalopathy (presumed to be caused by Papovavirus)(on histology)

E. Cancer:

1. Kaposi's sarcoma (on histology)

2. Lymphoma limited to the brain (on histology)

F. Other Opportunistic Infections with Positive Test for HTLV-III/LAV*:

In the absence of the above opportunistic diseases, any of the following diseases is considered indicative of AIDS if the patient had a positive test for HTLV-III/LAV*:

1. disseminated histoplasmosis, (on culture, histology, or cytology)

2. bronchial or pulmonary candidiasis, (on microscopy or visualization grossly of characteristic white plaques on the bronchial mucosa, but not by culture alone)

3. isosporiasis, causing chronic diarrhea (over 1 month), (on histology or stool microscopy)

G. Chronic Lymphoid Interstitial Pneumonitis:

In the absence of the above opportunistic diseases, a histologically confirmed diagnosis of chronic (persisting over 2 months) lymphoid interstitial pneumonitis in a child (under 13 years of age) is indicative of AIDS unless test(s) for HTLV-III/LAV are negative.* The histologic examination of lung tissue must show diffuse interstitial and peribronchiolar infiltration by lymphocytes, plasma cells with Russell bodies, plasmacytoid lymphocytes and immunoblasts. Histologic and culture evaluation must not identify a pathogenic organism as the cause of this pneumonia.

H. Non-Hodgkin's Lymphoma with Positive Test for HTLV-III/LAV*:
If the patient had a positive test for HTLV-III/LAV*, then the following histologic types of lymphoma are indicative of AIDS, regardless of anatomic site:

1. Small noncleaved lymphoma (Burkitt's tumor or Burkitt-like lymphoma), but not small cleaved lymphoma,

2. Immunoblastic sarcoma (or immunoblastic lymphoma) of B-cell or unknown immunologic phenotype (not of T-cell type). Other terms which may be equivalent include: diffuse undifferentiated non-Hodgkin's lymphoma, large cell lymphoma (cleaved or noncleaved), diffuse histiocytic lymphoma, reticulum cell sarcoma, and high-grade lymphoma.

Lymphomas should not be accepted as indicative of AIDS if they are described in any of the following ways: low grade, of T-cell type (immunologic phenotype), small cleaved lymphoma, lymphocytic lymphoma (regardless of whether well or poorly differentiated), lymphoblastic lymphoma, plasmacytoid lymphocytic lymphoma, lymphocytic leukemia (acute or chronic), or Hodgkin's disease (or Hodgkin's lymphoma).

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* a positive test for HTLV-III/LAV may consist of a reactive test for antibody to HTLV-III/LAV or a positive culture (isolation of HTLV-III/LAV from a culture of the patient's peripheral blood lymphocytes). If multiple antibody tests have inconsistent results, the result applied to the case definition, should be that of the majority done by the ELISA, immunofluorescent, or Western Blot methods. A positive culture, however, would over-rule negative antibody tests.

II. Known Causes of Reduced Resistance:

Known causes of reduced resistance to diseases indicative of immunodeficiency are listed in the left column, while the diseases that may be attributable to these causes (rather than to the immunodeficiency caused by HTLV-III/LAV infection) are listed on the right:

Known Causes of Reduced Resistance	Diseases Possibly Attributable to the Known Causes of Reduced Resistance
1. Systemic corticosteroid therapy	Any infection diagnosed during or within 1 month after discontinuation of the corticosteroid therapy, unless symptoms specific for an infected anatomic site (e.g., dyspnea for pneumonia, headache for encephalitis, diarrhea for colitis) began before the corticosteroid therapy or any cancer diagnosed during or within 1 month after discontinuation of more than 4 months of long-term corticosteroid therapy, unless symptoms specific for the anatomic sites of the cancer (as described above) began before the long-term corticosteroid therapy
2. Other immunosuppressive or cytotoxic therapy	Any infection diagnosed during or within 1 year after discontinuation of the immunosuppressive therapy, unless symptoms specific for an infected anatomic site (as described above) began before the therapy or any cancer diagnosed during or within 1 year after discontinuation of more than 4 months of long-term immunosuppressive therapy, unless symptoms specific for the anatomic sites of the cancer (as described above) began before the long-term therapy
3. Cancer of lymphoreticular or histiocytic tissue such as lymphoma (except for lymphoma localized to the brain), Hodgkin's disease, lymphocytic leukemia, or multiple myeloma	Any infection or cancer, if diagnosed after or within 3 months before the diagnosis of the cancer of lymphoreticular or histiocytic tissue

Known Causes of Reduced Resistance	Diseases Possibly Attributable to the Known Causes of Reduced Resistance
4. Age 60 years or older at diagnosis	Kaposi's sarcoma, but not if the patient has a positive test for HTLV-III/LAV
5. Age under 28 days (neonatal) at diagnosis	Toxoplasmosis or herpes simplex virus infection, as described above
6. Age under 6 months at diagnosis	Cytomegalovirus infection, as described above
7. An immunodeficiency atypical of AIDS, such as one involving hypogammaglobulinemia or angio-immunoblastic lymphadenopathy; or an immunodeficiency of which the cause appears to be a genetic or developmental defect, rather than HTLV-III/LAV infection	Any infection or cancer diagnosed during such immunodeficiency
8. Exogenous malnutrition (starvation due to food deprivation, not malnutrition due to malabsorption or illness)	Any infection or cancer diagnosed during or within 1 month after discontinuation of starvation

NOTE: CDC is in the process of updating the case definitions to be completed in May 1987.

CENTERS FOR DISEASE CONTROL
PROSPECTIVE EVALUATION OF HEALTH-CARE WORKERS EXPOSED VIA THE PARENTERAL ROUTE TO THE BLOOD OF PATIENTS INFECTED WITH HUMAN IMMUNODEFICIENCY VIRUS

Department of Health and Human Services
Public Health Service
Centers for Disease Control
Atlanta, Georgia 30333

OBJECTIVE:

The objective of this prospective surveillance project is to evaluate the occurrence of human immunodeficiency virus (HIV) infection in health-care workers who have been exposed via the parenteral route to the blood of persons infected with HIV.

MATERIALS AND METHODS

A. Eligibility Criteria

Health-care workers are eligible for enrollment in this prospective surveillance project if: 1) the worker has a documented percutaneous exposure (needlestick, puncture wound, or cut with a sharp object) to the blood of a person with HIV infection; 2) a serum specimen is collected from the worker no more than 30 days after the date of the exposure; 3) the worker consents to have HIV antibody testing performed by CDC; and 4) a serum sample is available from the person to whom the worker was exposed. Institutions and agencies which provide care for or services to persons infected with HIV and those agencies involved in collecting sera for HIV antibody testing (i.e. "Alternate Test Sites") will be invited to participate in this evaluation. Only those health-care workers with parenteral exposures to blood of persons known to be infected with HIV will be enrolled. Infectious disease specialists, the hospital epidemiologist, the Employee Health Service physician or the medical director at these institutions will be enlisted as cooperating investigators. These investigators will be responsible for surveillance of workers at their institution, for registering exposed workers, for data and specimen collection, and for prospective evaluation of exposed workers for the duration of the observation period.

B. Data Collection

1. Health-care Workers with an Exposure--Institutions and "Alternate Test Sites"

PERSONNEL EXPOSURE REPORT FORM--INITIAL CASE REPORT FORM (CDC 57.34B). Upon entry into the prospective surveillance project, each exposed health-care worker will be interviewed by the cooperating investigator and a questionnaire will be completed to collect the following data on the exposed worker: past medical history, use of immunosuppressive drugs, risk factors associated with HIV infection, the degree and type of exposure to the HIV-infected person's blood, and the type of precautions used to prevent exposure. A baseline physical examination and laboratory testing will be performed at this time.

QUESTIONNAIRE 2 (CDC 57.42A). The exposed health-care worker will be

asked to complete a questionnaire concerning risk factors for HIV infection which are of a sensitive nature. QUESTIONNAIRE 2 will be completed by the exposed health-care worker and mailed directly to CDC by the worker in a pre-addressed envelope. During the surveillance period, cooperating investigators will instruct the exposed health-care worker to report to them any illness lasting longer than one week.

2. Person to Whom the Health-care Worker was Exposed--Institutions

AIDS CONFIDENTIAL CASE REPORT FORM (CDC 50.42). The cooperating investigator will collect epidemiologic and laboratory data on the symptomatic HIV antibody-positive person (persons with AIDS or other illnesses due to HIV infection) to whom the health-care worker was exposed, including the means by which the diagnosis of HIV infection was made. The AIDS CONFIDENTIAL CASE REPORT FORM should be completed only if the HIV antibody-positive person has not previously been reported to CDC.

REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE. The cooperating investigator will collect epidemiologic and laboratory data on the asymptomatic person to whom the health-care worker was exposed. The report form must include the results of laboratory studies which support the diagnosis of infection with HIV.

3. Person to Whom the Health-care Worker was Exposed-- "Alternate Test Sites"

CONFIDENTIAL REPORT FORM FOR THE HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE (CDC 57.42B). The HIV antibody-positive person to whom the health-care worker was exposed at the "Alternate Test Site" will be asked to complete a questionnaire concerning risk factors for HIV infection which are of a sensitive nature. The CONFIDENTIAL REPORT FORM will be completed by the HIV antibody-positive person to whom the health-care worker was exposed and mailed directly by that person to CDC in a pre-addressed envelope.

LABORATORY REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE (CDC 57.42C). The cooperating investigator at the "Alternate Test Site" will record results of laboratory studies which support the diagnosis of infection with HIV on the LABORATORY REPORT FORM and mail the form to CDC.

4. Laboratory Specimens — Institutions and "Alternate Test Sites"

For the health-care worker to be eligible for participation in the project, a serum sample (10 ml.) must be obtained as soon as possible but no more than 30 days following the exposure. A serum sample (10 ml.) must also be available from the HIV-infected person to whom the health-care worker was exposed. These specimens will be sent, at ambient temperature, preferably within 24 hours after collection, by express mail to the CDC. The serum specimens will be banked at the CDC. These sera will be tested for HIV antibody only after written informed consent has been obtained (see Part E -- Informed Consent).

A heparinized whole blood sample (10 ml.) will be requested from the exposed health-care worker in special situations (i.e. the exposed worker who is symptomatic and/or HIV antibody-positive) and from a limited number of HIV infected persons involved in health-care worker exposures to perform additional testing (i.e. immunologic and virus isolation studies). Test results will be forwarded to the cooperating investigator periodically.

Each cooperating investigator will receive from CDC all forms necessary for registering exposed health-care workers in the surveillance project.

Investigators at patient-care institutions that are not "Alternate Test Sites" will receive the following forms:

1) PERSONNEL EXPOSURE REPORT FORM--INITIAL CASE REPORT FORM
2) QUESTIONNAIRE 2
3) SUGGESTED CONSENT FORM
4) COOPERATING INVESTIGATOR'S REPLY FORM
5) AIDS CONFIDENTIAL CASE REPORT FORM
6) REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE
7) SUGGESTED CHECK-LIST FOR INSTITUTIONAL INVESTIGATORS

Investigators at institutions that are "Alternate Test Sites" will receive all of the above forms except the AIDS CONFIDENTIAL REPORT FORM and the REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE; these forms will be replaced by the following forms:

1) CONFIDENTIAL REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH CARE WORKER EXPOSURE
2) LABORATORY REPORT FORM FOR THE ASYMPTOMATIC HTLV-III/LAV ANTIBODY-POSITIVE PERSON INVOLVED IN A HEALTH-CARE WORKER EXPOSURE

Each cooperating investigator will receive from the CDC laboratory specimen collection kits which contain the following materials: (1) an instruction form for submitting specimens, (2) specimen collection tubes, (3) containers for shipment of specimens, and (4) pre-addressed and franked mailing labels for express mail.

C. Informed Consent

Participation in the surveillance project will be voluntary. If required by the participating institution, informed consent for participating in the project (including data collection and venipuncture) will be obtained from the exposed health-care worker upon enrollment. Specific informed consent for HIV antibody testing at CDC must be obtained from the enrolled health-care worker and from the HIV infected person to whom the worker was exposed. The signed consent forms should be kept with the cooperating investigator's records of the surveillance project. The COOPERATING INVESTIGATOR'S REPLY FORM with the health-care worker's code number should be mailed to CDC to confirm the health-care worker's response. If the HIV infected person consents to having their serum retested at CDC this response should also be conveyed in writing to CDC.

D. Post-exposure Prophylaxis

A decision about prophylaxis for hepatitis B for the exposed health-care worker will be made by the individual institution using previously published recommendations for hepatitis B immune globulin (HBIG) and hepatitis B vaccine. No data are available concerning the value of HBIG or other modes of prophylaxis or therapy (e.g., immune globulin) for HIV exposure. Entry into this surveillance project should in no way influence therapeutic decisions if information about useful therapy or prophylaxis for HIV infection becomes available during the observation period.

E. Prospective Surveillance

The exposed health-care worker will be followed prospectively by the cooperating investigator for 1 year with follow-up data and specimen collection at 6 weeks, 3 months, 6 months and 1 year. At the time of each follow-up, a follow-up questionnaire and physical examination will be repeated (PERSONNEL EXPOSURE FOLLOW-UP FORM--CDC 57.34C). Serum (10 ml.) will be drawn and sent to CDC; serum specimens will be banked and tested for HIV antibodies. Additional laboratory testing (chest x-rays, skin tests, white blood cell counts) may be performed at the time of follow-up, as deemed appropriate by the cooperating investigator.

Shortly before the scheduled time for each follow-up evaluation, CDC will send to the cooperating investigator a notification of the scheduled follow-up, a PERSONNEL EXPOSURE FOLLOW-UP FORM and specimen collection kits (see B.4--Laboratory Specimens).

F. Records Management

Each participating institution will be assigned a center code by the CDC. Each enrolled health-care worker and the asymptomatic person to whom the worker was exposed will be assigned a code number by the CDC. These code numbers will be pre-printed on the report forms. In order to protect the confidentiality of persons on whom data is collected only the code numbers will be used in reporting data or submitting specimens to the CDC. The cooperating investigator will be responsible for maintaining a record linking the names and code numbers of the exposed health-care workers and the persons to whom the workers were exposed. It will be necessary for the cooperating investigator to have access to names of exposed health-care workers because the cooperating investigator will be responsible for coordinating follow-up of exposed workers should they leave the enrolling institution.

G. Data Analysis

The questionnaires will be analyzed to provide a descriptive profile of exposed health-care workers. If evidence for HIV infection is identified in an exposed health-care worker, further analysis will be performed. Exposed health-care workers who become infected with HIV will be compared with exposed health-care workers who did not become infected. Demographic data, the type of exposure to the HIV infected person, and the type of precautions used, if any, will be analyzed. Data analysis will be conducted in conjunction with Statistics and Information Systems Branch, Hospital Infections Program.

Summaries of all data collected will be provided by CDC to investigators from participating institutions on a periodic basis. Data will be summarized and reported regularly in the Morbidity and Mortality Weekly Report.

SUMMARY

This prospective surveillance project will determine the incidence of HIV infection in health-care workers who are exposed to potentially infectious blood via parenteral route and its incubation period using the presence of HIV antibody as the serological marker. The appropriateness and effectiveness of precautions currently recommended for prevention can then be re-evaluated. Associated occupational risk factors for infection with HIV may be better defined.

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APPENDIX E

1986 May 23; 35:334–339

Classification System for Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus Infections

INTRODUCTION

Persons infected with the etiologic retrovirus of acquired immunodeficiency syndrome (AIDS) (*1-4*)* may present with a variety of manifestations ranging from asymptomatic infection to severe immunodeficiency and life-threatening secondary infectious diseases or cancers. The rapid growth of knowledge about human T-lymphotropic virus type III/ lymphadenopathy-associated virus (HTLV-III/LAV) has resulted in an increasing need for a system of classifying patients within this spectrum of clinical and laboratory findings attributable to HTLV-III/LAV infection (*5-7*).

Various means are now used to describe and assess patients with manifestations of HTLV-III/LAV infection and to describe their signs, symptoms, and laboratory findings. The surveillance definition of AIDS has proven to be extremely valuable and quite reliable for some epidemiologic studies and clinical assessment of patients with the more severe manifestations of disease. However, more inclusive definitions and classifications of HTLV-III/LAV infection are needed for optimum patient care, health planning, and public health control strategies, as well as for epidemiologic studies and special surveys. A broadly applicable, easily understood classification system should also facilitate and clarify communication about this disease.

In an attempt to formulate the most appropriate classification system, CDC has sought the advice of a panel of expert consultants†, to assist in defining the manifestations of HTLV-III/ LAV infection.

GOALS AND OBJECTIVES OF THE CLASSIFICATION SYSTEM

The classification system presented in this report is primarily applicable to public health purposes, including disease reporting and surveillance, epidemiologic studies, prevention and control activities, and public health policy and planning.

Immediate applications of such a system include the classification of infected persons for reporting of cases to state and local public health agencies, and use in various disease coding and recording systems, such as the forthcoming 10th revision of the International Classification of Diseases.

DEFINITION OF HTLV-III/LAV INFECTION

The most specific diagnosis of HTLV-III/LAV infection is by direct identification of the virus in host tissues by virus isolation; however, the techniques for isolating HTLV-III/LAV currently lack sensitivity for detecting infection and are not readily available. For public health purposes, patients with repeatedly reactive screening tests for HTLV-III/LAV antibody (e.g., enzyme-linked immunosorbent assay) in whom antibody is also identified by the use of supplemental tests (e.g., Western blot, immunofluorescence assay) should be considered both infected and infective (*8-10*).

Although HTLV-III/LAV infection is identified by isolation of the virus or, indirectly, by the presence of antibody to the virus, a presumptive clinical diagnosis of HTLV-III/LAV infection has been made in some situations in the absence of positive virologic or serologic test results. There is a very strong correlation between the clinical manifestations of AIDS as defined by CDC and the presence of HTLV-III/LAV antibody (*11-14*). Most persons whose clinical illness fulfills the CDC surveillance definition for AIDS will have been infected with the virus (*12-14*).

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*The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III) lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation human immunodeficiency virus (HIV) has recently been proposed by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (*4*).

†The following persons served on the review panel: DS Burke, MD, RR Redfield, MD, Walter Reed Army Institute of Research, Washington, DC; J Chin, MD, State Epidemiologist, California Department of Health Services; LZ Cooper, MD, St Luke's-Roosevelt Hospital Center, New York City; JP Davis, MD, State Epidemiologist, Wisconsin Division of Health; MA Fischl, MD, University of Miami School of Medicine, Miami, Florida; G Friedland, MD, Albert Einstein College of Medicine, New York City; MA Johnson, MD; DI Abrams, MD, San Francisco General Hospital; D Mildvan, MD, Beth Israel Medical Center, New York City; CU Tuazon, MD, George Washington University School of Medicine, Washington, DC; RW Price, MD, Memorial Sloan-Kettering Cancer Center, New York City; C Konigsberg, MD, Broward County Public Health Unit, Fort Lauderdale, Florida; MS Gottlieb, MD, University of California—Los Angeles Medical Center; representatives of the National Institute of Allergy and Infectious Diseases, National Cancer Institute, National Institutes of Health; Center for Infectious Diseases, CDC.

CLASSIFICATION SYSTEM

This system classifies the manifestations of HTLV-III/LAV infection into four mutually exclusive groups, designated by Roman numerals I through IV (Table 5). *The classification system applies only to patients diagnosed as having HTLV-III/LAV infection (see previous section,* **DEFINITION OF HTLV-III/LAV INFECTION**). Classification in a particular group is not explicitly intended to have prognostic significance, nor to designate severity of illness. However, classification in the four principal groups, I-IV, is hierarchical in that persons classified in a particular group should not be reclassified in a preceding group if clinical findings resolve, since clinical improvement may not accurately reflect changes in the severity of the underlying disease.

Group I includes patients with transient signs and symptoms that appear at the time of, or shortly after, initial infection with HTLV-III/LAV as identified by laboratory studies. All patients in **Group I** will be reclassified in another group following resolution of this acute syndrome.

TABLE 5. Summary of classification system for human T-lymphotropic virus type III/lymphadenopathy-associated virus

Group I.	Acute infection	
Group II.	Asymptomatic infection*	
Group III.	Persistent generalized lymphadenopathy*	
Group IV.	Other disease	
Subgroup A	Constitutional disease	
Subgroup B	Neurologic disease	
Subgroup C	Secondary infectious diseases	
Category C-1	Specified secondary infectious diseases listed in the CDC surveillance definition for AIDS†	
Category C-2	Other specified secondary infectious diseases	
Subgroup D	Secondary cancers†	
Subgroup E	Other conditions	

*Patients in Groups II and III may be subclassified on the basis of a laboratory evaluation.

†Includes those patients whose clinical presentation fulfills the definition of AIDS used by CDC for national reporting.

Group II includes patients who have no signs or symptoms of HTLV-III/LAV infection. Patients in this category may be subclassified based on whether hematologic and/or immunologic laboratory studies have been done and whether results are abnormal in a manner consistent with the effects of HTLV-III/LAV infection.

Group III includes patients with persistent generalized lymphadenopathy, but without findings that would lead to classification in Group IV. Patients in this category may be subclassified based on the results of laboratory studies in the same manner as patients in Group II.

Group IV includes patients with clinical symptoms and signs of HTLV-III/LAV infection other than or in addition to lymphadenopathy. Patients in this group are assigned to *one or more* subgroups based on clinical findings. These subgroups are: A, constitutional disease; B, neurologic disease; C, secondary infectious diseases; D, secondary cancers; and E, other conditions resulting from HTLV-III/LAV infection. There is no *a priori* hierarchy of severity among subgroups A through E, and these subgroups are not mutually exclusive.

Definitions of the groups and subgroups are as follows:

Group I. Acute HTLV-III/LAV Infection. Defined as a mononucleosis-like syndrome, with or without aseptic meningitis, associated with seroconversion for HTLV-III/LAV antibody (*15-16*). Antibody seroconversion is required as evidence of initial infection; current viral isolation procedures are not adequately sensitive to be relied on for demonstrating the onset of infection.

Group II. Asymptomatic HTLV-III/LAV Infection. Defined as the absence of signs or symptoms of HTLV-III/LAV infection. To be classified in Group II, patients must have had no previous signs or symptoms that would have led to classification in Groups III or IV. Patients whose clinical findings caused them to be classified in Groups III or IV should not be reclassified in Group II if those clinical findings resolve.

Patients in this group may be subclassified on the basis of a laboratory evaluation. Laboratory studies commonly indicated for patients with HTLV-III/LAV infection include, but are not limited to, a complete blood count (including differential white blood cell count) and a platelet

count. Immunologic tests, especially T-lymphocyte helper and suppressor cell counts, are also an important part of the overall evaluation. Patients whose test results are within normal limits, as well as those for whom a laboratory evaluation has not yet been completed, should be differentiated from patients whose test results are consistent with defects associated with HTLV-III/LAV infection (e.g., lymphopenia, thrombocytopenia, decreased number of helper [T_4] T-lymphocytes).

Group III. Persistent Generalized Lymphadenopathy (PGL). Defined as palpable lymphadenopathy (lymph node enlargement of 1 cm or greater) at two or more extra-inguinal sites persisting for more than 3 months in the absence of a concurrent illness or condition other than HTLV-III/LAV infection to explain the findings. Patients in this group may also be subclassified on the basis of a laboratory evaluation, as is done for asymptomatic patients in Group II (see above). Patients with PGL whose clinical findings caused them to be classified in Group IV should not be reclassified in Group III if those other clinical findings resolve.

Group IV. Other HTLV-III/LAV Disease. The clinical manifestations of patients in this group may be designated by assignment to one or more subgroups (A-E) listed below. Within Group IV, subgroup classification is independent of the presence or absence of lymphadenopathy. Each subgroup may include patients who are minimally symptomatic, as well as patients who are severely ill. Increased specificity for manifestations of HTLV-III/LAV infection, if needed for clinical purposes or research purposes or for disability determinations, may be achieved by creating additional divisions within each subgroup.

Subgroup A. Constitutional disease. Defined as one or more of the following: fever persisting more than 1 month, involuntary weight loss of greater than 10% of baseline, or diarrhea persisting more than 1 month; and the absence of a concurrent illness or condition other than HTLV-III/LAV infection to explain the findings.

Subgroup B. Neurologic disease. Defined as one or more of the following: dementia, myelopathy, or peripheral neuropathy; and the absence of a concurrent illness or condition other than HTLV-III/LAV infection to explain the findings.

Subgroup C. Secondary infectious diseases. Defined as the diagnosis of an infectious disease associated with HTLV-III/LAV infection and/or at least moderately indicative of a defect in cell-mediated immunity. Patients in this subgroup are divided further into two categories:

Category C-1. Includes patients with symptomatic or invasive disease due to one of 12 specified secondary infectious diseases listed in the surveillance definition of AIDS[§]: *Pneumocystis carinii* pneumonia, chronic cryptosporidiosis, toxoplasmosis, extraintestinal strongyloidiasis, isosporiasis, candidiasis (esophageal, bronchial, or pulmonary), cryptococcosis, histoplasmosis, mycobacterial infection with *Mycobacterium avium* complex or *M. kansasii*, cytomegalovirus infection, chronic mucocutaneous or disseminated herpes simplex virus infection, and progressive multifocal leukoencephalopathy.

Category C-2. Includes patients with symptomatic or invasive disease due to one of six other specified secondary infectious diseases: oral hairy leukoplakia, multidermatomal herpes zoster, recurrent *Salmonella* bacteremia, nocardiosis, tuberculosis, or oral candidiasis (thrush).

Subgroup D. Secondary cancers. Defined as the diagnosis of one or more kinds of cancer known to be associated with HTLV-III/LAV infection as listed in the surveillance definition of AIDS and at least moderately indicative of a defect in cell-mediated immunity[¶]: Kaposi's sarcoma, non-Hodgkin's lymphoma (small, noncleaved lymphoma or immunoblastic sarcoma), or primary lymphoma of the brain.

Subgroup E. Other conditions in HTLV-III/LAV infection. Defined as the presence of other clinical findings or diseases, not classifiable above, that may be attributed to HTLV-III/LAV infection and/or may be indicative of a defect in cell-mediated immunity. Included are patients with chronic lymphoid interstitial pneumonitis. Also included are those patients whose signs or symptoms could be attributed either to HTLV-III/LAV infection or to another coexisting disease not classified elsewhere, and patients with other clinical illnesses, the course or management of which may be complicated or altered by HTLV-III/LAV infection. Examples include: patients with constitutional symptoms not meeting the criteria for subgroup IV-A; patients with infectious diseases not listed in subgroup IV-C; and patients with neoplasms not listed in subgroup IV-D.

[§]This subgroup includes patients with one or more of the specified infectious diseases listed whose clinical presentation fulfills the definition of AIDS as used by CDC for national reporting.

[¶]This subgroup includes those patients with one or more of the specified cancers listed whose clinical presentation fulfills the definition of AIDS as used by CDC for national reporting.

Reported by Center for Infectious Diseases, CDC.

Editorial Note: The classification system is meant to provide a means of grouping patients infected with HTLV-III/LAV according to the clinical expression of disease. It will require periodic revision as warranted by new information about HTLV-III/LAV infection. The definition of particular syndromes will evolve with increasing knowledge of the significance of certain clinical findings and laboratory tests. New diagnostic techniques, such as the detection of specific HTLV-III/LAV antigens or antibodies, may add specificity to the assessment of patients infected with HTLV-III/LAV.

The classification system defines a limited number of specified clinical presentations. Patients whose signs and symptoms do not meet the criteria for other groups and subgroups, but whose findings are attributable to HTLV-III/LAV infection, should be classified in subgroup IV-E. As the classification system is revised and updated, certain subsets of patients in subgroup IV-E may be identified as having related groups of clinical findings that should be separately classified as distinct syndromes. This could be accomplished either by creating additional subgroups within Group IV or by broadening the definitions of the existing subgroups.

Persons currently using other classification systems (*6-7*) or nomenclatures (e.g., AIDS-related complex, lymphadenopathy syndrome) can find equivalences with those systems and terminologies and the classification presented in this report. Because this classification system has only four principal groups based on chronology, presence or absence of signs and symptoms, and the type of clinical findings present, comparisons with other classifications based either on clinical findings or on laboratory assessment are easily accomplished.

This classification system does not imply any change in the definition of AIDS used by CDC since 1981 for national reporting. Patients whose clinical presentations fulfill the surveillance definition of AIDS are classified in Group IV. However, not every case in Group IV will meet the surveillance definition.

Persons wishing to comment on this material are encouraged to send comments in writing to the AIDS Program, Center for Infectious Diseases, CDC.

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APPENDIX H

Human Immunodeficiency Virus (HIV) Test Report
Montana Department of Health and Environmental Sciences
Montana AIDS Program

To be submitted within 15 days after the last day of each month.

Date of report: _____/_____/_____
month / day / year

Report for the month of: _____

Name of reporting laboratory or physician: _____

Address: _____

_____

Phone number of reporter: _____

Total number of blood units donated for reporting month: _____

Total number of HIV antibody tests performed during reporting month: _____

a) Number of ELISA tests performed: total: _____
number positive: _____
number negative: _____

b) Number of Western Blot tests performed: total: _____
number positive: _____
number negative: _____

c) Number of other type of tests performed: total: _____
(specify type: _____) number positive: _____
number negative: _____

For positive HIV test results, complete the following:

a) Date of Test	b) Name of Reporter	c) Address of Reporter	d) Initials/ Identifier of Person Testing Positive

Signature of reporter: _____

Submit this form to: Montana AIDS Program
Department of Health and Environmental Sciences
Cogswell Building
Helena, MT 59620

APPENDIX J

Excerpted from: Chapter 28, Administrative Rules of Montana

16.28.201 REPORTERS (1) A person, including but not limited to a physician, dentist, nurse, medical examiner, other practitioner, administrator of a health care facility, public school superintendent, or headmaster or administrator of a private school, who knows or has reason to believe that a category A, B, C, or D reportable disease, as specified in 16.18.202, exists shall report as required in ARM 16.28.202 to a local health officer or the department

(2) A person administering a clinical laboratory in which a laboratory examination of any specimen derived from the human body yields microscopic, cultural, immunological, serological, or other evidence indicative of a disease listed in subsection (2) (c) of this rule shall notify the local health department or the department.

(a) A notification must include the name, date and result of the test performed; the name and age of the person from whom the specimen was obtained; and the name and address of the physician for whom the test was performed. Notification may be by telephone, submission of a legible copy of the laboratory report, or submission of a department reporting form which may be obtained from the Preventive Health Services Bureau.

(b) A laboratory notification submitted in accordance with this rule is confidential and is not open to public inspection.

(c) The diseases subject to notification under subsection (2) of this rule are:

Brucella
Chancroid
Diphtheria
Gonorrhea
Granuloma inguinale
Hepatitis A or B
Leptospirosis
Lymphogranuloma venereum
Rubella (non-immune persons only)
Salmonellosis
Shigellosis
Syphilis
Tuberculosis
Typhoid or Paratyphoid Fever or any other disease listed in ARM 16.28.202(1) through (4).

(3) A physician who diagnoses a case of acquired immune deficiency syndrome (AIDS) must submit to the department and the local health officer the report required by 16.28.202(5)(c).

(4) A physician or laboratory performing a blood test which shows the presence of the antibody to the human T-lymphotropic virus type III must:

(a) Submit to the department the report required by 16.28.202(5)(d); and

(b) Submit to the department laboratory a blood specimen from the person tested in order to confirm the test results.

(5) The administrator of a laboratory in which a test of blood is made to determine whether the antibody to the human T-lymphotropic virus type III is present must submit to the department by the 15th day following the month in which the test was performed a report on a form supplied by the department indicating the number of tests with negative results for that antibody which

were done during that month. (History: Sec. 50-1-202, 50-17-103, 50-18-105 MCA; IMP, Sec. 50-1-202, 50-2-118, 50-17-103, 50-18-102, 50-18-106 MCA; NEW, 1980 MAR p. 1579, Eff. 6/13/80; AMD, 1986 MAR p. 254, Eff. 2/28/86.)

16.28.202 REPORTABLE DISEASES Reportable communicable diseases include:

(1) - (4) Same as existing rule.

(5) (a) Category E diseases and conditions are:

(i) Acquired immune deficiency syndrome (AIDS);

(ii) Potential AIDS, as indicated by the presence of the human T-lymphotropic virus type III antibody.

(b) A category E disease or condition must be reported to the department and, in the case of AIDS, to the local health officer of the county from which the report is made, by 5:00 p.m. Friday of the week in which the diagnosis of AIDS is made or the test showing potential AIDS is performed.

(c) The report for AIDS must include the information required by the department's communicable disease confidential case report from available from the department.

(d) The report of potential AIDS must include:

(i) The date the test identifying the antibody was performed;

(ii) the name and address of the reporter; and

(iii) the initials of the person tested or any other identifier, such as a number, assigned by the reporter which does not reveal the name of the person tested.

(e) The name of any category E case and the name and street address of the reporter of any such case are confidential and not open to public inspection. (History: Sec. 50-1-202, 50-17-103, 50-18-105, 50-18-106, MCA; IMP, Sec. 50-1-202, 50-2-118, 50-17-103, 50-18-102, 50-18-106 MCA; NEW, 1980 MAR p. 1579, Eff. 6/13/80; AMD, 1986 MAR p. 254, Eff. 2/28/86.)

APPENDIX K

Postexposure Prophylaxis for Hepatitis B

Prophylactic treatment to prevent hepatitis B after exposure to HBV should be considered in the following situations: perinatal exposure of an infant born to an HBsAg-positive mother; accidental percutaneous or permucosal exposure to HBsAg-positive blood; or sexual exposure to an HBsAg-positive person.

Recent studies have established the relative efficacies of immune globulins and/or hepatitis B vaccine in various exposure situations. For perinatal exposure to an HBsAg-positive, HBsAg-positive mother, a regimen combining one dose of HBIG at birth with the hepatitis B vaccine series started soon after birth is 85%-90% effective in preventing development of the HBV carrier state. Regimens involving either multiple doses of HBIG alone, or the vaccine series alone, have 70%-75% efficacy, while a single dose of HBIG alone has only 50% efficacy.

For accidental percutaneous exposure or sexual exposure, only regimens including HBIG and/or IG have been studied. A regimen of two HBIG doses, one given after exposure and one a month later, is about 75% effective in preventing hepatitis B following percutaneous exposure; a single dose of HBIG has similar efficacy when used following sexual exposure. IG may have some effect in preventing clinical hepatitis B following percutaneous exposures and can be considered as an alternative to HBIG when it is not possible to obtain HBIG.

Recommendations on postexposure prophylaxis are based on the efficacy data discussed above and on the likelihood of future HBV exposure of the person requiring treatment. In perinatal exposure and percutaneous exposure of high-risk health-care personnel, a regimen combining HBIG with hepatitis B vaccine will provide both short- and long-term protection, will be less costly than the two-dose HBIG treatment alone, and is the treatment of choice.

APPENDIX K (Continued)

Recommendations for Hepatitis B Prophylaxis Following Percutaneous Exposure

Source	Exposed Person: Unvaccinated	Exposed Person: Vaccinated
HBsAg-positive	1. HBIG x 1 immediately* 2. Initiate HB vaccine series.	1. Test exposed person for anti-HBs.§ 2. If inadequate antibody,¶ HBIG (x1) immediately plus HB vaccine booster dose.
Known source High-risk HBsAg-positive	1. Initiate HB vaccine series 2. Test source for HBsAg. If positive, HBIG x 1.	1. Test source for HBsAg only if exposed is vaccine non-responder; if source is HBsAg-positive, give HBIG x 1 immediately plus HB vaccine booster dose
Low-risk HBsAg-positive	Initiate HB vaccine series	Nothing required
Unknown Source	Initiate HB vaccine series	Nothing required

*HBIG dose 0.06 ml/kg IM.

+HB vaccine does 20 ug IM for adults; 10 ug IM for infants or children under 10 years of age. First dose within 1 week; second and third doses, 1 and 6 months later.

§See text for details.

¶Less than 10 SRU by RIA, negative by EIA.

Reference: MMWR, Vol. 34, No. 22.

APPENDIX L

Recommendation of the Immunization Practices Advisory Committee (ACIP)

Immunization of Children Infected with HIV

Recommendations

Children with Symptomatic HIV Infection:

A. Live-virus and live-bacterial vaccines (e.g., MMR, OPV, BCG) should not be given to children and young adults who are immunosuppressed in association with AIDS or other clinical manifestations of HIV infection. For routine immunizations, these persons should receive inactivated poliovaccine (IPV) and should be excused for medical reasons from regulations requiring measles, rubella, and/or mumps immunization.

B. Concerns have been raised that stimulation of the immune system by immunization with inactivated vaccines in these individuals might cause deterioration of immunologic function. However, such effects have not been noted thus far among children with AIDS or among other immunosuppressed individuals after immunization with inactivated vaccines. The potential benefits of immunization of these children outweigh the concerns of theoretical adverse events. Immunization with DTP, IPV, and Haemophilus influenzae type b vaccines is recommended in accordance with the ACIP recommendations, although immunization may be less effective than it would be for immunocompetent children.

C. As with other conditions that produce chronic immunosuppression, the Committee recommends annual immunization with inactivated influenza vaccine for children over 6 months of age and one-time administration of pneumococcal vaccine for children over 2 years of age.

D. Children and young adults with AIDS or other clinical manifestations of HIV infection -- as other immunosuppressed patients -- may be at increased risk of having serious complications of infectious diseases, such as measles and varicella. Following significant exposure to measles or varicella, these persons should receive passive immunization with immune globulin (IV) or varicella-zoster immune globulin (VZIG), respectively.

Children With Previously Diagnosed Asymptomatic HIV Infection

A. A small number of children and young adults known to be infected with HIV but without overt clinical manifestations of immunusuppression have received live-virus vaccines without adverse consequences. Further experience needs to be monitored, but on the basis of data now available, the Committee believes that such persons should be vaccinated with MMR in accordance with ACIP recommendations. Vaccinees should be followed for possible adverse reactions and for the occurrence of vaccine-preventable diseases since immunization may be less effective than for uninfected persons.

B. Available data suggest that OPV can be administered without adverse consequences to HIV infected children who do not have overt clinical

manifestations of immunosuppression. However, because family members of such children may be immunocompromised due to AIDS or HIV infection and therefore at increased risk of paralysis from contact with spread vaccine virus, it may be prudent to use IPV routinely to immunize asymptomatic children with previously diagnosed HIV infection.

C. Immunization with DTP and Haemophilus influenzae type b vaccines is recommended in accordance with ACIP recommendations.

Children Not Known To Be Infected with HIV

Children and young adults not known to be infected with HIV should be immunized in accordance with ACIP recommendations.

Children Residing in the Household of a Patient with AIDS

Children whose household members are known to be immunocompromised due to AIDS or other HIV infections should not receive OPV because vaccine viruses are excreted by the recipient of the vaccine and may be communicable to their immunosuppressed contacts. These children should receive IPV for routine immunization. Because extensive experience has shown that live, attenuated MMR vaccine viruses are not transmitted from vaccinated individuals to others, MMR may be given to a child residing in the household of a patient with AIDS.

¶Some physicians administer full replacement doses of intravenous IG on a 2-4 week schedule to children with AIDS and other clinical manifestations of HIV infection. This therapy may provide some protection against diseases such as measles and varicella.

Reference: "Immunization of Children Infected with HTLV-III/LAV;" MMWR, Vol. 35, No. 38, September 26, 1986.